PREFERENCES FOR ALTERNATIVE EDUCATIONAL PROGRAMMING IN RURAL IOWA K-12 PUBLIC SCHOOL DISTRICTS

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by

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An abstract of a Dissertation by
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June 1981
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In 1977 the Iowa Legislature defeated a bill which would have mandated school district reorganization in Iowa's K-12 public schools with enrollments under three hundred students. These districts would have been required to reorganize with other districts creating a new district of at least six hundred students. This would have affected forty-seven of Iowa's four hundred forty-nine public K-12 school districts.

The problem. The purpose of this study was to discern the preferences of students, teachers, parents, school board members, and administrators in school districts representative of the fifty smallest K-12 public school districts in Iowa, toward selected alternatives available to rural school districts. The study was concerned with determining (1) which of the selected alternatives (sharing administrators, sharing teachers, sharing programs, sharing facilities, voluntary reorganization, or increasing local taxes) are most preferred to the groups studied, (2) which of the selected alternatives are most preferred when the four considerations of quality, efficiency, cost, and transportation are introduced, (3) the relationship of the five groups' rankings of the four considerations, and (4) the relationship of the five groups' rankings of the six alternatives.

Procedure. A review of related literature provided information concerning the concept and rationale for shared services as an alternative educational programming option for rural schools and information concerning Iowa rural school districts involved with alternative educational programming. Eight of Iowa's fifty smallest school districts were randomly selected for participation in the study. Analysis of Variance was used to compare the data derived from the five groups. When the Analysis of Variance was significant, dependent t-tests were used to assess the differences between specific pairs of means. Pearson Product Moment Correlation Coefficients were utilized to determine the relationship among the five groups' rankings of the six alternatives. A Spearman Rho Correlation Coefficient was used to determine the relationship of the five groups' rankings of the four considerations. The .05 level of probability for rejection of the null hypotheses was used. Both the .05 and .01 levels were reported on the tables presented.

Findings. In relation to problem 1 stated above, the general pattern from most preferred to least preferred was: sharing teachers, sharing administrators, sharing programs or facilities, increasing local taxes, and voluntary reorganization. In relation to problem 2, sharing teachers remained the most preferred alternative. When considering cost and efficiency, voluntary reorganization and increasing local taxes were least preferred. However, when quality was introduced, voluntary reorganization was preferred to increasing local taxes. When transportation was introduced, increasing local taxes was preferred to voluntary reorganization. In relation to problem 3, all groups ranked the 4 considerations in the same priority order. From highest to lowest, the priority was quality, efficiency, cost, and transportation. In relation to problem 4, the relationship of the five groups' rankings of the six alternatives, with and without the four considerations was significantly positive between all groups except teachers, who did not have any significant relationships with any of the other groups.

Conclusions. Based upon the findings of this study, school board members and administrators of Iowa's rural school districts should respond to the effects of declining enrollment, spiraling operational costs, legislatively controlled budgets, and minimum curriculum standards by exploring the various alternative educational programming options available. The Iowa Department of Public Instruction should consider studying successful sharing programs, investigate alternative funding for shared programming, evaluate the current school reorganization law, and evaluate the role of the Area Education Agencies in providing more effective alternative educational services to rural school districts.

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Chapter 1

INTRODUCTION

Many educators have spent their professional careers dealing with growth in school enrollments. Growth has permeated the whole scheme of things; administrative styles have been nurtured under growth conditions. Currently, many communities and states face a future of declining enrollments.

The facts of declining enrollments should be studied and appropriate strategies and procedures to cope with these trends should be developed. Each community should develop its own strategies as each is unique. How each school district responds to declining enrollments should be determined by its financial resources and enrollment projections, educational programs and goals, community needs, communication and decision-making, and its planning ability.[1]

According to Dr. Virginia Trotter, Assistant Secretary for Education, HEW, the traditional public opinion is

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[1] M. Bolton, P. Hefley, and D. Scannell, Declining Enrollments and School Closings (Washington, D.C.: U.S. Office of Education, Department of Health, Education and Welfare, 1976), p. 9.

that as enrollments decline, there should be a corresponding decrease in the costs of running the school. However, two basic economic dilemmas prevent this from becoming a reality. First, costs will continue to rise even as student numbers decline. Second, most operating expenditures will respond only to a fairly substantial decline in enrollment, while under many current finance plans, school revenue immediately drops when the district loses a student. Dr. Trotter also indicates that a second most commonly pronounced public opinion is that with a decrease in the number of students, fewer teachers are needed. However, declining enrollments do not necessarily mean that districts eliminate jobs, but that long range staffing plans must be made to reflect reduced student populations and increased fiscal restraints.[1]

Dr. James Jess concluded in his doctoral dissertation, Quality, Equity, Efficiency, Evaluation, and Local Flexibility: The Political and Educational Dilemmas of Iowa's Foundation Plan, that Iowa's smaller school districts deserve more political attention and credit for offering quality educational opportunities to their students.[2]

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[1]Ibid., p. 10.

[2]James Jess, "Quality, Equity, Efficiency, Evaluation, and Local Flexibility: The Political and Educational Dilemmas of Iowa's Foundation Plan" (Doctoral dissertation, Drake University, 1977), p. 185.

The current K-12 public school aid foundation formula in the state of Iowa is contingent upon the number of students enrolled in a district on a specified date. Declining student enrollments, spiraling operational costs, and state controlled budgets thus pose very difficult problems for Iowa's public school districts. Fewer students often leads to program cuts, staff reduction, and increased pressure to maintain standards of instruction desired or mandated by local communities and the state. Smaller rural districts are faced with fewer options when forced to reduce staff or delete programs due to such pressures.

In 1977 the Iowa legislature responded to this problem in the form of a bill which would have mandated school district reorganization in Iowa's K-12 public schools with enrollments under three hundred students. These districts would have been required to reorganize with other districts creating a new district of at least six hundred students. This would have affected forty-seven of Iowa's four hundred forty-nine public K-12 school districts. The impact of this legislation was evident in that over seventy concerned citizens spoke against the bill during an Iowa Senate public hearing designed to assess public opinion. Following the hearing, the bill was debated and ultimately defeated by four votes. The bill emerged for further discussion during the 1977 summer interim committee on education.

Major problems facing Iowa's smaller school districts still exist: declining student enrollment, spiraling operational costs, legislatively controlled budgets, and minimum curriculum standards mandated by the state. Finding viable alternatives to mandated school districts reorganization is a common goal of many smaller school districts and their communities.

How a district adapts to its situation may depend on the number of alternatives available. Prioritizing identified needs helps in the conceptualization of alternatives for meeting those needs. This process requires weighing and assessing the consequences of the alternative decisions.

As educators consider such alternatives as sharing programs, teachers, administrators, facilities, transportation, equipment as well as other concerns involving alternatives to reorganization, they should consider the relative impact on their local programs. Will these alternatives provide the educational needs of the districts? Will the students derive any additional benefits? Will there be monetary savings?

Statement of Problem

The purpose of this study was to discern the preferences of students, teachers, parents, school board members, and administrators in school districts representative of the

fifty smallest K-12 public school districts in Iowa, toward selected alternatives available to rural school districts.

This study was concerned with determining (1) which of the selected alternatives (sharing administrators, sharing teachers, sharing programs, sharing facilities, voluntary reorganization, or increasing local taxes) are most preferred to the groups studied, (2) which of the selected alternatives are most preferred when the four considerations of quality, efficiency, cost, and transportation are introduced, (3) the relationship of the five groups' rankings of the four considerations, and (4) the relationship of the five groups' rankings of the six alternatives.

Significance of the Study

Iowa's rural K-12 public schools should concentrate on offering all essential elements of a basic foundation of education for their students, thus affording them the opportunity to function as well-adjusted persons in society and to profit from training for vocational careers or preparation for higher education. The curriculum should be flexible enough to meet student needs and to provide access to specialized interests through cooperative efforts among local school districts, communities, regional and state agencies.

Even with the widespread decline in Iowa's school enrollment and the accompanying operational problems which

besiege the rural schools, it is still possible that these districts can make necessary adjustments and adaptations, and survive the drop in enrollment with a quality educational program intact.

This study was designed to focus attention on the preferences of teachers, parents, students, administrators, and school board members toward alternative educational programming for small rural K-12 public Iowa schools. Findings of this study should have important implications for local districts as they plan to meet future needs in lieu of spiraling costs, declining enrollments, controlled budgets, and mandated conditions of service.

The study should also be useful to Area Education Agencies since they are legislatively responsible for preparing the reorganization plans mandated by the 67th General Assembly of the Iowa Legislature.

Finally, teacher training institutions should benefit from this study as they prepare future teachers to more effectively deal with problems unique to small rural schools.

It is hoped that this study will also encourage further research on the questions of alternative educational programming for small rural schools.

Hypotheses

The test (null) hypotheses for this study were as follows:

Ho_1: There are no differences in preferences among the six alternatives for all groups combined with no considerations introduced.

Ho_2: When cost is introduced as a consideration, there are no differences in preferences among the six alternatives for all groups combined.

Ho_3: When quality is introduced as a consideration, there are no differences in preferences among the six alternatives for all groups combined.

Ho_4: When efficiency is introduced as a consideration, there are no differences in preferences among the six alternatives for all groups combined.

Ho_5: When transportation is introduced as a consideration, there are no differences in preferences among the six alternatives for all groups combined.

Ho_6: When no considerations are introduced, there are no differences in teachers' preferences among the six alternatives.

Ho_7: When no considerations are introduced, there are no differences in parents' preferences among the six alternatives.

Ho_8: When no considerations are introduced, there

are no differences in students' preferences among the six alternatives.

Ho_9: When no considerations are introduced, there are no differences in administrators' preferences among the six alternatives.

Ho_{10}: When no considerations are introduced, there are no differences in board members' preferences among the six alternatives.

Ho_{11}: There are no differences in priority among the four considerations for all groups combined.

Ho_{12}: There are no relationships among the five groups' rankings of the four considerations.

Ho_{13}: There are no relationships among the five groups' total rankings of the six alternatives.

Ho_{14}: There are no relationships among the five groups' total rankings of the six alternatives when cost is introduced as a consideration.

Ho_{15}: There are no relationships among the five groups' total rankings of the six alternatives when quality is introduced as a consideration.

Ho_{16}: There are no relationships among the five groups' total rankings of the six alternatives when efficiency is introduced as a consideration.

Ho_{17}: There are no relationships among the five groups' total rankings of the six alternatives when transportation is introduced as a consideration.

Limitations of the Study

This study was limited in scope to Iowa's rural K-12 public school districts. The districts were randomly selected from the fifty smallest districts, thus the results are representative of only those fifty districts.

Assumptions

The writer assumed that the preferences of the respondents from each of the five groups were representative of all members of that group in each of the sampled districts and that there would not be a difference in response of the returns and the non-returns, since the nature of the study was administrative rather than an evaluation of alternatives or programs.

Definition of Terms

Sharing Administrators: Two or more K-12 school districts employ an administrator to administer each school district. Example: Schools A and B hire one superintendent to serve as chief administrator of both districts.

Sharing Facilities: Two or more K-12 school districts cooperatively use the same school facilities. Example: School A's bus barn is used by both School A and B for housing and maintenance.

Sharing Programs: Two or more K-12 school districts jointly offer courses to be held at one attendance center.

Example: Schools A, B, and C offer high school chemistry for credit, to be taught by one instructor, at one attendance center.

Sharing Teachers: Any K-12 school district could employ a teacher on less than a full-time basis, sharing that teacher with a neighboring district. Example: An art teacher instructs art classes at School A in the morning and at School B in the afternoon.

Voluntary Reorganization: Two or more school districts vote to voluntarily reorganize into one school district.

Increasing Local Taxes: Each local school district is given the option to increase local taxes within satisfactory limits to provide more revenue. Example: School District A votes to increase the local property taxes by passing an enrichment levy.

Cost: The dollar amount needed to provide the services to the students during a school year.

Quality: A degree of excellence; a judgment of the education received by the student. The output of an educational program.

Efficiency: Quality received for dollars spent.

Transportation: The moving of students from their homes to the school attendance center and back again at the end of the school day.

Chapter 2

REVIEW OF RELATED LITERATURE

Introduction

This chapter is presented in two parts. The first provides information concerning the concept and rationale for shared services as an alternative educational programming option for rural schools. The second provides information concerning Iowa rural school districts and their involvement in alternative educational programming.

Part I: The Concept and Rationale for Shared Services

Many educational authorities point to the shared services concept as a real hope for rural schools. "Shared service is more than change," concluded the Northwest Regional Educational Laboratory,

> It is the vehicle by which access to quality education and equality of educational opportunities being carried to youth who, by circumstances of residence, are required to attend schools with limited enrollments, limited facilities, often poorly prepared teachers, and more often, limited course offerings.[1]

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[1] Rural Shared Services, U.S., Educational Resources Information Center, ERIC Document ED 028 885, April, 1969, p. 1.

Saving money is not the usual reason school districts decide to cooperate. In reality, additional services usually end up costing more--but not as much as if the school district had tried to provide the extra programs on its own. "Research has shown that additional services are made available less expensively by sharing than by individual acquisition and are frequently of higher quality."[1]

However, there are advantages to cooperation which counterbalance financial problems. Three of the most important pluses are that cooperative sharing tends to involve isolated administrators in solving problems together, it can renew interest in education among citizens, and it can provide needed services to youth, all accomplished without loss of autonomy to local school districts.[2]

School personnel need not feel that they are embarking on a pioneering effort if they try sharing programs and personnel.

> There are enough demonstrations around the country that have been successful that educators can see the possibilities. These examples prove that multiple district cooperation can do many things that rural school districts were unable to do previously.[3]

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[1]Patricia Pine, Shared Services and Cooperatives: Schools Combine Resources to Improve Education, U.S., Educational Resources Information Center, ERIC Document ED 056 471, December, 1971, p. 2.

[2]Ibid., p. 3.

[3]Ibid.

Jonathan Sher enumerated the following as educational alternatives for rural school districts: creation of mobile libraries and laboratories, development of school exchange programs, use of advanced instructional technologies, use or obtainment of services from regional educational units, establishment of a teacher corps system using special subject teachers, para-professionals, assistants and tutors, and overall, the voluntary sharing of services.[1]

The Northwest Laboratory Survey lists numerous kinds of activities, both large and small, that can be shared effectively: programs for reading improvement, services for the handicapped, migrant youth, early childhood education, guidance services, mobile vocational education, vocational counseling, educational television, standardized testing, media and materials preparation, personnel recruitment, computer utilization, cooperative purchasing, bus scheduling, sharing of administrative staff, and amplified telephone communications.[2]

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[1]James Jess, ed., "Rural Education; Yesterday, Today, and Tomorrow," Convention Report People United for Rural Education, February, 1978, p. 30.

[2]Ray Jongerward, Rural Shared Services, U.S., Educational Resources Information Center, ERIC Document ED 042 550, 1969, p. 4.

Choosing Services

There is almost no limit to the variety of services which cooperatives can provide. But how do educational agencies decide which services are most appropriate? Appalachia Lab authorities have suggested four major criteria for choosing prospective programs:

> The program should bear a logical relationship to previously identified educational needs.
>
> It should work best at a regional level of operation, because of economies of large scale purchasing or the need to distribute resources more evenly.
>
> It should have a reasonable good chance of obtaining long-range funding.
>
> It should be continued only if evaluation shows it to be cost effective in comparison with alternatives.[1]

The Appalachia Lab also asks its cooperatives to spend a full year assessing area needs before deciding which program to undertake. Kincheloe cited this as one of the most important steps in cooperative organization. He also noted that many cooperatives can't afford to wait a full year before starting programs that show some results. To sidestep this problem, some Appalachia cooperatives have identified broad areas of need--vocational education, special education, and early childhood education--and have begun some programs on that basis, while simultaneously

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[1]Pine, op. cit., p. 10.

carrying on a formal in-depth study of their area's needs.[1]

Another important consideration in selecting programs, authorities say, is to be sure to give districts something they especially think they need. "Generate services out of demand," says the Northwest Lab's Ray Jongerward.

> Find out what the people in the community believe they need most and then present them with possible answers to the problem. This approach lasts much longer than the hard-sell method.[2]

When local school administrators themselves recognize the need for sharing services, they often join together in a voluntary spontaneous cooperative. Although few think of them this way, loose "cooperatives" have existed for years in the form of jointly sponsored athletic leagues, speech contests and music festivals. Sometimes this kind of cooperation can lead to sharing in other areas. When school districts around Havre, Montana, began discussing how to schedule basketball games more conveniently, the talk turned to other problems the schools faced. One administrator discovered a neighboring district offered one class his students needed, while his schools provided a subject not available in the other district. As a result, the two districts began a small-scale student exchange.[3]

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[1] Ibid.

[2] Ibid.

[3] Ibid., p. 20.

In another step toward sharing, the Havre area schools decided to pool their money and hire consultants to do research and status studies. Each district agreed to contribute on the basis of pupil population, with the largest districts paying about $2,000 per year and the smallest about $500. The districts then signed contracts to formalize their agreement. Since then, the cooperative has ventured into other areas, such as joint purchasing of school buses. So far, the Havre cooperative has been financed entirely by local funds and backed up by strong commitment from local administrators and board members. Northern Montana College has offered the schools some consultant help, but most of the work has been done by the districts themselves. Without this commitment, experts say, spontaneous cooperatives may prove short-lived. "This type of organization is more meaningful than others in terms of personal commitment by the administration and staff of the schools involved," the Northwest Lab study reports.[1]

Financing Shared Services

Some authorities agree that the most desirable way of financing a cooperative is through the regular, continuing support of member school districts. But getting local financial commitment is not easy. Local pressures to take care of local needs by local resources make it

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[1] Ibid., p. 21.

difficult to get funds. Still, educators stress the importance of regular local district contributions, both as a symbol of real local commitment and as a way to avoid the letdown that often occurs after an initial windfall of outside money is used up. "If schools can't contribute to the project from the beginning," says Ray Jongerward, "the cooperative at least should plan from the start how the project can be transferred to local support later on."[1]

When local districts do help support their cooperatives, most do so on the basis of a per-pupil assessment. Districts can also contribute in other ways. Schools may be assessed so much per professional employee or so much per pupil for specific services. They may also be charged a flat fee for participation, as some districts may make two separate contributions to a cooperative: a membership fee based on the total number of pupils in each district served and a charge for specific programs based on the pupils in each participating district.

Like other promising educational innovations, cooperative programs have received substantial aid from some major foundations. Foundation-donated money has encouraged innovative attempts to solve problems of education in small schools through cooperation. Grants from foundations have been a crucial aid in financing a few cooperatives that

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[1]Ibid.

reach beyond the boundaries of a single state. The Western States Small School Project (WSSSP), got its start through a 1957 grant from the Ford Foundation to the Colorado State Department of Education. The grant was to aid in developing means to overcome "barriers of extreme distance, severe terrain, population sparsity, and other such contrived obstacles as county lines and local tradition" that stood in the way of quality education in the state of Colorado. By 1962, the education departments of Utah, New Mexico, Nevada, and Arizona had joined Colorado in the program.[1]

Seven criteria that educators might use to decide whether their districts could benefit from sharing are:

> Do the teachers need opportunities to learn new teaching methods?
>
> Would the school district like to offer more vocational experiences for students?
>
> Does the school need qualified counselors or specialists?
>
> Do the teachers need more audio-visual materials for their classroom?
>
> Does the cost of teacher recruitment need to be reduced?
>
> Is the school unable to offer the students two or three years of science, foreign language, or math?
>
> Is the school unable to provide special programs for the gifted and handicapped students?[2]

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[1] Ibid., p. 22.

[2] Jongerward, op. cit., p. 8.

Legal Structures

In answering these questions and others regarding the possibility of sharing with other school districts, the law must allow the cooperative efforts to take place in order to implement any program of cooperative sharing.

In some states, legislation makes cooperative ventures extremely difficult. West Virginia's constitution specifies that funds collected locally must be spent locally. In a number of states, cooperatives may not act as their own fiscal agents. In Virginia, the state education department cannot provide matching funds when they are to be used for cooperative activities.[1]

Despite such examples, however, some states do seem to be growing more lenient toward educational cooperatives. In the fall of 1970, some thirty-three states had legislation permitting the development of cooperatives, either in the form of voluntary organizations or as state-mandated regional intermediate school districts. Two additional states, Missouri and North Carolina, have no laws which prevent school systems from cooperating, although cooperatives cannot be established as separate legal organizations. One of the most permissive laws concerning voluntary cooperatives was passed in February 1971 in Tennessee allowing local districts to cooperate in any way feasible to

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[1]Pine, op. cit., p. 7.

provide better services more economically.[1]

Summary

In summary of part one in relationship to the study, the literature reveals the shared services concept as a means of alternative educational programming for rural schools, having been demonstrated in many parts of the country, consisting of numerous types of programs with various financial and legal structures.

Part II: Iowa Rural School Districts and Alternative Educational Programming

The state of Iowa allows for joint planning and sharing of services, programs, or personnel by school districts, as found in Chapter 28E, Code of Iowa.[2] This legislation also allows for additional state funding to those school districts sharing teachers and programs, which helps off-set the extra costs of transporting students or teachers and encourages the offering of courses which might not otherwise be possible.

Cooperative Sharing

The Iowa Association of School Board's Rural Education Study Committee recommended that local school board

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[1]Ibid.

[2]Joint Exercise of Government Powers, Chapter 28E, Code of Iowa (Des Moines: Iowa State Printing Division, 1981), p. 143.

members become aware of the ways in which curriculum can be enriched and instruction enhanced through cooperative or joint agreements, through the staff of area education agencies, the facilities of merged area schools, or other resources. It also recommended that local school boards actively seek to augment their local staff and facilities through these means, and to develop long range plans for meeting the problems of declining enrollments.[1]

In a survey to determine the amount of program and personnel sharing taking place in Iowa public school districts, the Iowa Association of School Boards found that seventy-seven districts were sharing teachers, counselors, or administrators with another school district and sixty-four school districts were involved in a joint education program where students were transported to another location for instruction by a teacher employed by one of the districts. These were district agreements between or among local K-12 school districts. It did not include instruction provided by a merged area school or special education programs or arrangements with area education agencies.[2]

Tables 1 and 2 reveal the joint classes and the personnel shared by the Iowa school districts which

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[1]"Rural Education Study Committee," Iowa Association of School Boards, March-April, 1978, p. 32.

[2]Ibid., p. 24.

Table 1

Shared Classes (Students Travel)

Vocational/Agriculture	35
Foreign Language	8
Science	5
Math	3
English	3
Health	3
Driver's Training	3
Career Education	3
Social Studies	1
K-6	1
Music: Elementary/Secondary	2
Art: Elementary/Secondary	1
Reading	1
In 64 districts, classes total	69

Table 2

Shared Personnel (Staff Travels)

Teachers	
Foreign Language	18
Vocational/Agriculture	16
Art: Elementary/Secondary	14
Music: Elementary/Secondary	8
Social Studies	3
K-6	4
Math	3
Coaching	3
Science	2
Driver's Training	2
Career Education	1
Reading	1
G.E.D.	1
Home Economics	1
Administrative Support	47
In 77 districts, personnel shared	124

Source: "77 Iowa Schools Sharing Staff, 64 Share Classrooms," The Iowa School Board Dialogue, XXVIII, No. 5 (1978), 15.

responded to the survey.

Most of the school districts in Iowa involved in the cooperative programs had student enrollments of less than 499. One school district reporting sharing instruction had more than 3,500 students and nine school districts of more than one thousand students reported sharing personnel or programs involving student travel. There were cooperative agreements reported from all of the fifteen areas of Iowa, with most of the cooperative programs and shared personnel taking place in the area centered around Fort Dodge.[1]

The Rural Education Study Committee's report indicated that the school administrators who completed the survey considered sharing personnel and cooperative programming as serving the dual purpose of providing additional course offerings and meeting the needs of the Iowa minimum standards requirement.[2]

The administrators were asked their general opinions regarding joint and cooperative programs and shared personnel, including obstacles in development and implementation. Their views are tabulated in Tables 3 and 4.

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[1]Ibid., p. 14.

[2]Ibid., p. 15.

Table 3

Administrator Opinions Regarding the Use of Joint or Cooperative Educational Programs and Sharing of School Personnel

Good idea (excellent)	71
Effective if developed well	41
Okay if schools have similar needs to share	22
Small school needs both	20
An alternative to forestall reorganization	17
Costs less	15
Program must cost less or it's not worth it	13
Okay if needed to meet minimum standards	13
It works	12
Provides specialized educational opportunities	11
Broadens curriculum	11
Have mixed feelings	10
Only a partial answer	9
Teacher should travel, but not the student	7
Not in favor	7
Not effective--not efficient	5
Gives a better program	5
Keeps qualified teacher in major study area	5
A waste of travel time	5
Avoid at all costs	5

Source: Ibid., p. 16.

Table 4

Administrator Opinions Regarding the Major Obstacles to Initiate Joint or Cooperative Educational Programs or Sharing of School Personnel with other Elementary/Secondary School Districts

Scheduling conflicts	80
Wasted teacher time traveling	72
Transportation of students	53
Finding suitable teacher willing to travel	35
Community wants own identity and control (pride)	34
Distance between districts	27
Student's/parent's rejection	23
Transportation costs	21
Someone must coordinate and take leadership of program (fully)	20
Negotiated master contract differences	19
Board members' attitudes	17
Teachers' attitudes	14
Causes reorganization later	13
Needs are different per school	12
Administration insecurity	10
Another school won't cooperate	10
Coordinating calendars	10
Different educational philosophies	9
Teacher loyalty factor	9
Lack of teacher supervision	8
Overloads on administration to implement and evaluate program/staff.	8

Source: Ibid., p. 16.

Program Alternatives

In a research report prepared by the Grant Wood Area Education Agency, eighty-four school sharing alternatives were explored by the school boards, staffs, and community members of the Belle Plaine and HLV School Districts.[1]

Five areas of consideration were used to measure the utility that each sharing alternative was expected to have for the districts, as judged by each group completing the survey. The five areas of consideration included: Educational Quality, Cost Effectiveness, Implication for Staff, Community Acceptance, and Efficient Facilities usage.[2]

The pattern of importance ratings on these five alternatives significantly differed both by District and by Groups Across Districts. It was concluded that these differences were primarily due to the high importance rating given to the attribute Implications for Staff by the staff members themselves. In both instances (by Group Across District and by District) Educational Quality was given the highest importance for sharing.[3]

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[1] M. Herrick and S. Olson, "An Exploration of Inter-District Sharing Alternatives" (Cedar Rapids, Iowa: Area Education Agency 10, 1980), p. 1. (Mimeographed.)

[2] Ibid.

[3] Ibid., p. 5.

There was much greater agreement between groups regarding sharing alternatives deemed the worst than there was for alternatives deemed the best. The three alternatives recommended as having the greatest potential were Building Trades, Vocational Agriculture/Farm Management, and Gifted and Talented. The three worst sharing ideas were Cheer Leading, Drill Team and Cooks.[1]

The study concluded that the school boards saw the greatest value in sharing and that correlations indicated that there was a fairly substantial level of agreement between the ways in which the groups in the two districts ranked the eighty-four items.[2]

Wallace Burns reports that the Storm Lake (Iowa) League of Schools offers alternative educational programs to ten local school districts, including nine pre-career and preparatory programs which are staffed by personnel from Iowa Central Community College. The participating schools have control of the programs and express the willingness to cooperate with neighboring schools, helping provide the same educational opportunities to students in rural communities which are provided in larger school districts without making major reorganization efforts or losing local control.[3]

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[1]Ibid., p. 12. [2]Ibid.

[3]"77 Iowa Schools," op. cit., p. 18.

Activities of the Storm Lake League of Schools, which included both public and parochial schools include:

> Development of a foreign language program using audio-tutorial methods.
>
> Development of a plan for providing a four year approved vocational agricultural program to serve the needs of the students in all ten schools.
>
> Development of an experienced based career education program (EBCE) providing a viable alternative to traditional high schools.
>
> Providing inservice training for teachers at all grade levels in the concept and activities necessary to implement a career education program in the regular classroom.[1]

These programs were implemented through initial funding by the federal government with the training workshops staffed by Iowa Central Community College with some involvement by the Arrowhead Education Agency in the EBCE program.

An approach to educational programming for rural schools can include expanding curriculum offerings through various types of course scheduling within the school system. The challenge of providing an enriched curriculum, comparable in number to the course offerings of large schools has been met by some rural school districts in Iowa.

The Iowa Valley (Marengo, Iowa) School District implemented in 1973-74 the "Small-Way Micro-Course Curriculum

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[1]Ibid.

Project 150". The design was to convert the traditional small school curriculum consisting in Iowa Valley of 58 credit courses to a program of 177 nine or eighteen week course options with no increase in teaching personnel or instructional materials expense. As a result, the district, which was the state's 200th largest district, offered a curriculum in quantitative terms which was matched or surpassed by only 53 school districts in Iowa.[1]

Trimester scheduling is another alternative to the traditional semester concept of scheduling. Dr. Gene Fokken states that trimester scheduling divides the school year into three 60-day periods in which pupils can enroll in two courses, one taken for a two-hour period in the morning and another for two hours in the afternoon. In addition, three 45-minute periods are utilized for music, the arts, physical education and mini-courses. The most significant advantages of this approach to scheduling is to increase curricular offerings without increasing staff, to expand the number of classes each student may take, it reduces the daily teacher exposure to students from approximately 120 to 50 per day and also minimizes pupil scheduling conflicts.[2]

The mini-course concept is another alternative

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[1]Jess, op. cit., p. 45.

[2]Ibid., p. 46.

educational programming method which can provide students the opportunity to study additional subjects or to further develop skills learned in a course. According to Sales, the mini-course has proved to be extremely popular with both students and teachers. Although art and industrial arts are generally the most popular, students have arranged to take mini-courses in science, home economics, mathematics, social studies, mass media, literature, typing, music, and grammar.[1] Giving students the opportunity to design and participate in mini-courses has several advantages, according to Sales:

> All mini-courses are student initiated and reflect their interest.
>
> The student must assume the responsibility for getting the required work done.
>
> It gives the student and teacher another opportunity to work towards a common goal. This partnership should become the basis for a personal, working relationship.[2]

Sales states that the success of mini-courses must depend upon the cooperation of the teachers and the initiative of the students, so that course offerings can be expanded and student's needs met in a rural school.[3]

Another form of alternative educational programming in rural Iowa schools has been that of the Lohrville

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[1] Ibid.

[2] Ibid.

[3] Ibid.

Community School's career education model, TOWARD COMMUNITY GROWTH, a model developed from a study funded by the United States' Office of Education, Division of Career Education, in June of 1978.[1]

Dr. Roger Baskerville, Superintendent of the Lohrville Community School authored this attitudinal study which was conducted with the seven senior classes of the school districts of Calhoun County. The attitudes of senior students concerning various aspects of rural life were not determined through a pretest and a posttest. Only the Lohrville senior students (which were the control group) experienced the federally funded career education program TOWARD COMMUNITY GROWTH. The program was designed to influence the decision of rural students to remain in the community following graduation from high school. With the help of local resource people in the community and surrounding school districts potential and existing job availabilities and opportunities were examined and experienced. Attitudes and emotions concerning the benefits of rural occupations and lifestyles were taught in a class especially designed for exploiting the rural way of life. The results of the study did show statistically significant

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[1]Roger Baskerville, Toward Community Growth: A Career Education Model for Iowa and Other Predominantly Rural States (Ft. Dodge, Iowa: Arrowhead Education Agency Learning Resource Center, 1979), p. 1.

attitudinal gains toward rural life, rural occupations, rural education, and rural community growth. The study produced a learning/teaching packet for the purpose of interesting students in their local communities and promoting community growth.[1]

TOWARD COMMUNITY GROWTH was a study designed to give rural students occupational opportunities in their native rural areas. Dr. Kent B. Winter stated that "The migration of rural people, particularly young people, has been going on for some years and will continue. Occupational and educational opportunities may better be provided for in the rural areas..." Winter ultimately concluded that "Only a small percentage of the farm youth studied indicated a desire to continue residence in a rural area because they realized the lack of opportunity."[2]

Administrative Sharing

Sharing administrators is an option for Iowa's rural school districts and in conjunction with declining student enrollments is more evidentas the number of elementary principals administering only one school has decreased from 660 in 1974 to 532 in 1980. Superintendents and elementary principals of one or more schools have

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[1]Ibid., p. 2.

[2]Ibid., p. 3.

increased from fifty-five in 1974 to ninety-one in 1980.[1] According to Carl Miles of the Iowa Department of Public Instruction, only three superintendents are serving more than one district for the 1980-81 school year. They are: Robert Jackson, superintendent of Dunlap and East Monona; Gary Keplinger, superintendent of both Rolfe and Havelock-Plover; and Tom Wilkie, serving the Melvin and Sibley School Districts.[2]

Dr. David P. Holmes, former shared superintendent of the East Monona and Whiting School Districts indicates that the advantages of sharing the superintendent include:

> Better utilization of administrators
>
> Savings of administrative salaries to the respective districts
>
> Facilitates sharing of staff
>
> The superintendent potentially can incorporate the best of both schools[3]

Holmes enumerates the disadvantages as being

> Difficult for the superintendent to become involved with two schools

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[1]Statement by William Hansen, Iowa Department of Public Instruction, personal interview, Creston, Iowa, March 20, 1980.

[2]Statement by Carl Miles, Iowa Department of Public Instruction, personal interview, Des Moines, Iowa, September 19, 1980.

[3]Personal correspondence to the writer from Dr. David Holmes, Superintendent, East Monona and Whiting Comm. Schools, November, 1978.

The superintendent is spread thin

The districts must have strong building principals

It is only a stop-gap measure, as the superintendent's salary is a small portion of the budget.[1]

In 1978 Dr. Robert Eastman surveyed the six superintendents who were each serving as superintendent for two school districts. They listed as advantages the following:

Increase in superintendent's salary

An additional set of challenges

A broader view of problems

Easier to use shared personnel

Personal satisfaction

Perceived disadvantages were:

Increased evening activities

Necessity of two school boards, two board meetings, and two sets of state and local reports[2]

The size of the school districts sharing a superintendent, according to Templeton, ranged from a student enrollment of 155 to 460. The combined student enrollment of the districts ranged from 395 to 830. The distance between the two attendance centers varied from as close as six miles to as far as thirty miles. All shared superintendents maintained two offices with their time scheduled in each

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[1]Ibid.

[2]Jess, "Rural Education," op. cit., p. 42.

district reflecting proportionately the percentage of salary paid by each district.

Templeton's survey revealed the sharing of superintendents was initiated to solve a common problem for the particular districts. Keys to success included strong building principals and the realization that both districts would lose some of the superintendent's services.[1]

Increasing Local Taxes

Iowa law provides for an additional local tax which can be levied by the district for additional research, curriculum maintenance or development, or innovative programs upon approval of the qualified voters of the community. This election must be held by February 15 of the year before it will be used. If a sample majority of those voting favors raising the enrichment amount, the board of education may include the approved amount in its certified budget.[2]

The additional enrichment amount cannot exceed 10 percent of the state cost per pupil multiplied by the adjusted enrollment in the district. The state comptroller determines the amount based upon the most recent figures available for the district's valuation of taxable property,

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[1]Ibid.

[2]School Foundation Program, Chapter 442.14, Code of Iowa, op. cit.

individual state income tax paid, and adjusted district enrollment.[1]

As this tax is voted on by the local school district electors, the money is raised and spent only in that district. Since September 13, 1975, the following Iowa school districts have successfully passed the Enrichment Levy as per Chapter 442.14 of the Code of Iowa: Alden, Buffalo Center-Rake, Burt, CAL, Clearfield, Collins, Corwith-Wesley, Diagonal, Dumont, Gilmore City-Bradgate, Goldfield, Havelock-Plover, Kanawha, Klemme, Lakota, Lincoln Central, Lohrville, Lytton, Meservey-Thornton, Northeast Hamilton, Sioux Valley, Steamboat Rock, Startford, Thompson, Titonka, Wellsburg, Woden-Crystal Lake.[2]

School district size means different things to different people. Over the past fifty years the minimum and optimum school district sizes have varied considerably. The recommendations for minimum school district size has ranged from 400 to 10,000 students, while optimum district size varies from less than 750 to 50,000 students.[3]

Arguments on what is a large or small school district create problems for researchers and legislators

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[1]Ibid.

[2]Statement by Gayle Obrecht, Iowa Department of Public Instruction, Des Moines, Iowa, September 18, 1980.

[3]Joseph Millard, "How Long Should a Man's Legs Be?" (Ankeny, Iowa: Area Education Agency 11, 1979), p. 1. (Mimeographed.)

examining school district size. The 1974 Summary of Research on Size of Schools and Districts provided a comprehensive review of literature. Some concluding remarks were:

> School size is not absolute; it is but one of many factors related to educational quality. Good education can and does occur in schools ranging from small to large.
>
> School district size is not absolute; district size, too, is but one of many factors relating to educational quality and operational efficiency.
>
> Schools and school districts that are small can achieve quality in educational programs but only if sufficient funds are available and are properly spent to compensate for the diseconomies of smallness.[1]

Voluntary Reorganization

Jonathon Sher and Rachel Tompkins indicated that the most successfully implemented educational policy of the past fifty years has been the consolidation of rural schools and school districts, citing that the number of school districts has decreased from 128,000 in 1931 to 16,960 in 1972.[2]

Many states have provided financial incentives and rewards for those school districts willing to consolidate.

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[1] Summary of Research on Size of Schools and School Districts, ERS Research Brief (Arlington, Virginia: Educational Research Service, 1974), pp. 49-50, cited by Millard, op. cit., p. 5.

[2] Jonathan P. Sher and Rachel B. Tompkins, Economy, Efficiency, and Equality: The Myths of Rural School and District Consolidation (Washington, D.C.: National Institute of Education, U.S. Department of Health, Education and Welfare, 1976), p. 1.

At least one state (Vermont) offered increased state revenue to local districts which tried, even unsuccessfully, to bring about consolidation. Many states, such as West Virginia and Indiana, made the availability of state school construction funds contingent upon the acceptance of local consolidation plans.[1] The state of Iowa allows the local electors the opportunity to vote upon proposed school district reorganization as an alternative in educational programming. Since 1977 the following Iowa school districts have voluntarily reorganized with a majority of the voters approving in each district: Buffalo Center-Rake, Sioux Rapids-Rembrandt, Swea City-Ledyard, Armstrong-Ringsted, Galva-Holstein, New Providence-Eldora, and Hartley-Melvin. The following districts were unsuccessful in obtaining voter approval for voluntary reorganization (since 1977): Collins-Maxwell, Oakland-Carson, Macedonia, Gilmore-City-Bradgate and Rolfe.[2]

The Area Education Agency

Chapter 273.1 of the Code of Iowa describes the intent of the Iowa Legislature in creating the area education agencies to:

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[1]Ibid., p. 26.

[2]Obrecht, op. cit.

> Provide an effective, efficient, and economical means of identifying and serving children from under five years of age through grade twelve who require special education and any other children requiring special education as defined in section 281.2; to provide for media services and other programs and services for pupils in grades kindergarten through twelve and children requiring special education as defined in section 281.2; to provide a method of financing the programs and services; and to avoid a duplication of programs and services provided by any other school corporation in the state.[1]

Within this framework the fifteen area education agencies of Iowa provide various services to school districts through the divisions of special education, media, and educational services. As each area education agency serves different school districts who have different needs, not all of the programs and services are exactly alike throughout the fifteen area education agencies.

Since the area education agencies in Iowa can plan and conduct programs which cross local school district lines, they are in the position to provide educational leadership in developing programs that can save the local school districts financially and can offer alternatives in curriculum planning, teacher inservice, data processing, cooperative purchasing, research and demonstration models, media, support and instructional services.

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[1]Area Education Agency, Chapter 273, Code of Iowa (Des Moines, Iowa: Iowa State Printing Division, 1981), p. 1345.

In summary of part two in relationship to the study, the literature reveals that Iowa rural school districts are involved in alternative educational programming through such means as sharing teachers, sharing programs, sharing administrators, sharing buildings and facilities, increasing or maintaining curricular offerings by financing through increasing local taxes, and by using the option of voluntary reorganization.

This study should contribute to the literature and research involving rural schools and program alternatives by adding the dimension of personal preferences of those groups of people directly involved with the educational programs of their schools. It should reveal information beneficial to the administrators and school board members to help them in the decision making process when alternatives must be weighed.

Chapter 3

METHODS AND PROCEDURES

Overview

The information in this chapter is concerned with the research design and statistical procedures which were used to determine the preferences of selected individuals toward alternative educational programming for rural Iowa public school districts. Table 5 reports the make-up of the groups surveyed, the six alternatives, and the four considerations which were included in the questionnaire.

Table 5

The Six Alternatives, Four Considerations and Five Groups Surveyed

Five Groups	Six Alternatives	Four Considerations
Students	Sharing Administrators	Quality
Teachers	Sharing Facilities	Efficiency
Parents	Sharing Programs	Cost
School Board Members	Sharing Teachers	Transportation
Administrators	Increasing Local Taxes	
	Voluntary Reorganization	

The study was concerned with determining (1) which of the selected alternatives are most preferred by the five

groups studied, (2) which of the selected alternatives are most preferred when the four considerations are introduced, (3) the relationship of the five groups' rankings of the four considerations, and (4) the relationship of the five groups' rankings of the six alternatives.

This chapter included: (1) sampling procedure, (2) survey instruments, (3) procedures for distribution and administration of the instruments, and (4) method of data analysis.

Sampling Procedure

For the purpose of measuring the preferences of selected individuals towards alternative educational programming for Iowa's rural public schools, the population of the study represented the students, teachers, parents, school board members, and administrators of the fifty smallest public school districts with student enrollments below 300, as identified by the Iowa Department of Public Instruction's Data Analysis and Statistics Section for the 1977-78 school year. (Appendix A.)

Of these fifty school districts, eleven were randomly selected until a total of eight school districts had agreed to participate in the study. Personal and political reasons were given by the three superintendents who declined to have their districts participate.

The approximate numbers of students, teachers,

parents, school board members, and administrators in each school district was supplied the researcher by each local superintendent participating in the study. The following numbers of questionnaires were sent to the eight participating schools: 748 student, 827 parent, 192 teacher, 40 school board member, and 20 administrator. The number returned included: 391 student, 278 parent, 80 teacher, 19 school board member, and 11 administrator.

In determining the sample to be used in the research, twenty-five questionnaires were randomly selected from among each of the student, teacher, and parent groups to be used with the nineteen school board member and eleven administrator returned questionnaires, of the eight participating school districts.

Survey Instrument

During the 1976-77 school year, a meeting was held involving superintendents neighboring the New Providence Community School: Eldora, Union-Whitten, and Steamboat Rock. Discussion centered around alternative educational programming for the schools and possible ways to further the cooperative process. Some sharing of teachers and programs was already taking place and had in the past. Informal administrative discussions and planning continued throughout the school year.

On September 13, 1977, the New Providence Community

School Board presented a questionnaire to the voters of the district to help assess the school patrons' attitudes regarding education and alternatives for their district. (Appendix B.)

The results of this survey gave the New Providence Community School Board and administration the impetus to continue further discussions with other districts.

Formal meetings were then held with board members and administrators of the Eldora, Steamboat Rock, and Union-Whitten School Districts. The administrator of Area Education Agency 6 was present at one of the meetings and approved the utilization of the AEA's grant writer in further study of alternative educational programming for these four districts.

Two educational consultants were then brought in from Iowa State University to help develop a questionnaire to be used in all four districts to assess the opinions of the patrons regarding educational cooperation among the four districts. This survey included students, parents, adults in the community, school board members, and teachers. The items addressed on the survey were: (1) having students from neighboring schools attend one or more classes in your school, (2) having local students attend one or more classes at neighboring schools, and (3) sharing programs, i.e., bussing students between neighboring school districts. The average overall response was within the acceptance to

no opinion range. (Appendix C.)

From these events, it was determined the five population groups to be surveyed would be students, teachers, parents, school board members, and administrators; the six alternatives to be ranked would be sharing administrators, sharing programs, sharing facilities, sharing teachers, increasing local taxes, and voluntary reorganization; and the four considerations of quality, efficiency, transportation, and cost would be included in the questionnaire.

The questionnaire used in the study consisted of four pages which included a cover letter to the participant, a page of definitions, the items to be ranked, and a place for comments. The participants were asked to rank the six alternatives in order of preference while considering the items of cost, quality, efficiency, and transportation. They were asked to prioritize the four considerations (cost, quality, efficiency, and transportation), and to prioritize the six alternatives (sharing administrators, sharing facilities, sharing teachers, sharing programs, voluntary reorganization, and increasing local taxes). The questionnaire can be found in Appendix D.

Procedures for Distributing and Administering the Instrument

A telephone call was made to each of the eight participating school districts, explaining to the local superintendent the procedure for distribution of the

questionnaire. A color-coding was used for the different respondent groups to facilitate distribution and to simplify tabulation upon return. The approximate shipment date was given as well as the deadline for return. The local administrators were asked to explain to their teachers, students, and board members the purpose of the study, in hopes that the responses would be greater and care taken in completion of the questionnaire.

The superintendents provided the approximate numbers needed for the questionnaires. The appropriate numbers were then shipped to the schools by May 10, 1978, with instructions to complete them by May 19, 1978.

Methods of Data Analysis

An analysis of variance was used to test null hypotheses 1 through 5 and 11, those concerned with comparing the means derived from the data from all five groups combined.

An analysis of variance was also used to test null hypotheses 6 through 10, those concerned with comparing the means derived from the data within each of the five groups separately.

When the Anova was significant, a dependent t-test was used to assess the differences between specific pairs of means.

Pearson Product Moment Correlation Coefficients were

used to test null hypotheses 13 through 17, those concerned with the relationship among 5 groups' rankings of the six alternatives.

A Spearman Rho Correlation Coefficient was used to test null hypothesis 12, which was concerned with the relationship of the 5 groups' rankings of the four considerations.

The .05 level of probability was selected for rejection of the null hypotheses. Both the .05 and .01 levels of probability were reported on the tables presented.

Chapter 4

PRESENTATION OF DATA

Restatement of the Problem

The purpose of this study was to discern the preferences of students, teachers, parents, school board members, and administrators in school districts representative of the fifty smallest K-12 public school districts in Iowa, toward selected alternatives available to rural school districts.

The study was concerned with determining (1) which of the selected alternatives (sharing administrators, sharing facilities, sharing programs, sharing teachers, voluntary reorganization, or increasing local taxes) are most preferred by the groups studied, (2) which of the selected alternatives are most preferred when the four considerations of quality, efficiency, cost, and transportation are introduced, (3) the relationship of the five groups' rankings of the four considerations, and (4) relationship of the five groups' rankings of the six alternatives.

Findings of the Study

This chapter presents the findings of the study.

Each hypothesis is stated along with a table depicting the appropriate statistical analysis and summary of the results.

Table 6 reports for referral purposes the six alternatives, five groups, and four considerations which were used throughout the research. Each alternative, group, and consideration will not be mentioned individually in all of the remaining tables.

Table 6

The Six Alternatives, Four Considerations and Five Groups Surveyed

Five Groups	Six Alternatives	Four Considerations
Students	Sharing Administrators	Quality
Teachers	Sharing Facilities	Efficiency
Parents	Sharing Programs	Cost
School Board Members	Sharing Teachers	Transportation
Administrators	Increasing Local Taxes	
	Voluntary Reorganization	

Ho_1: There are no differences in preferences among the six alternatives for all groups combined with no considerations introduced.

The result of the analysis of variance among the means of the six alternatives available to rural school districts using the data from all groups combined is reported in Table 7. The F value was significant at the .01 level, resulting in a rejection of hypothesis. Details of the specific differences between each pair of means are reported in

Table 8.

Table 7

Analysis of Variance Among the Means of Six Alternatives Available to Rural School Districts, Using the Data from all Groups Combined

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	5	326.20	65.24	22.44**
Within	505	1468.47	2.91	
Total	510	1794.67		

**p<.01

In interpreting the following t-tables, it should be kept in mind that the smaller the number of the mean rank indicates a higher preference for the given alternative. When reading the t-tables (columns minus rows) the negative numbers indicate the column alternative is preferable to the row alternative. Positive numbers indicate that the row alternative is preferable to the column alternative.

Table 8 reports the results of the t-values for differences between all pairs of means for six alternatives available to rural school districts, using data from all groups combined. A significant t-value indicates a preference by the respondents for one alternative over another. The significantly different preferences are as follows:

Sharing teachers was preferable to sharing facilities, sharing administrators, sharing programs,

voluntary reorganization and increasing local taxes.

Sharing programs was preferable to voluntary reorganization and increasing local taxes.

Sharing administrators was preferable to voluntary reorganization and increasing local taxes.

Table 8

t-Values for Differences Between Each Pair of Means for Six Alternatives Available to Rural School Districts using the Data from all Groups Combined (columns minus rows)

Alternative	Voluntary Reorganization	Increasing Local Taxes	Sharing Programs	Sharing Teachers	Sharing Facilities
Increasing Local Taxes	-.93				
Sharing Programs	3.46**	4.78**			
Sharing Teachers	6.59**	8.60**	4.99**		
Sharing Facilities	3.53**	5.35**	.16	-4.30**	
Sharing Administrators	5.03**	5.82**	1.53	-2.52*	1.73

*p<.05
**p<.01

Ho_2: When cost is introduced as a consideration, there are no differences in preferences among the six alternatives for all groups combined.

Table 9 reports the results of the analysis of variance among the means of six alternatives available to

rural school districts when cost is introduced as a consideration, using data from all groups combined. The F value was significant at the .01 level, resulting in a rejection of the null hypothesis. Details of the specific differences between each pair of means are reported in Table 10.

Table 9

Analysis of Variance Among the Means of Six Alternatives Available to Rural School Districts when Cost is Introduced as a Consideration, Using Data from all Groups Combined

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	5	397.04	79.41	28.92**
Within	505	1386.45	2.75	
Total	510	1783.49		

**p<.01

Table 10 reports the results of the t-values for differences between all pairs of means for six alternatives available to rural school districts when cost is introduced as a consideration, using data from all groups combined. A significant t-value indicates a preference by the respondents for one alternative over another. The significantly different preferences are as follows:

> Sharing teachers was preferable to sharing facilities, sharing programs, voluntary reorganization, and increasing local taxes.

Sharing programs was preferable to voluntary reorganization and increasing local taxes.

Sharing facilities was preferable to voluntary reorganization and increasing local taxes.

Table 10

t-Values for Differences Between Each Pair of Means for Six Alternatives Available to Rural School Districts when Cost is Introduced as a Consideration, Using Data from all Groups Combined (columns minus rows)

Alternative	Voluntary Reorganization	Increasing Local Taxes	Sharing Programs	Sharing Teachers	Sharing Facilities
Increasing Local Taxes	-.94				
Sharing Programs	4.70**	5.97**			
Sharing Teachers	7.44**	8.63**	3.38**		
Sharing Facilities	4.12**	6.36**	1.39	-4.41**	
Sharing Administrators	6.02**	7.62**	.99	-1.86	2.49**

*p<.05
**p<.01

Ho_3: When quality is introduced as a consideration, there are no differences in preferences among the six alternatives for all groups combined.

Table 11 reports the results of the analysis of variance among the means of six alternatives available to rural school districts when quality is introduced as a

consideration, using data from all groups combined. The F value was significant at the .01 level, resulting in a rejection of the null hypothesis. Details of the specific differences between each pair of means are reported in Table 12.

Table 11

Analysis of Variance Among the Means of Six Alternatives Available to Rural School Districts when Quality is Introduced as a Consideration, Using Data from all Groups Combined

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	5	188.50	37.70	11.86**
Within	505	1605.67	3.18	
Total	510	1794.17		

**p<.01

Table 12 reports the results of the t-values for differences between all pairs of means for six alternatives available to rural school districts when quality is introduced as a consideration, using data from all groups combined. A significant t-value indicates a preference by the respondents for one alternative over another. Significantly different preferences are as follows:

> Sharing teachers was preferable to sharing facilities, sharing administrators, voluntary reorganization, and increasing local taxes.

Sharing administrators was preferable to increasing local taxes.

Sharing programs was preferable to voluntary reorganization and increasing local taxes.

Sharing facilities was preferable to increasing local taxes.

Voluntary reorganization was preferable to increasing local taxes.

Table 12

t-Values for Differences Between each Pair of Means for Six Alternatives Available to Rural School Districts when Quality is Introduced as a Consideration, Using Data from all Groups Combined (columns minus rows)

Alternative	Voluntary Reorganization	Increasing Local Taxes	Sharing Programs	Sharing Teachers	Sharing Facilities
Increasing Local Taxes	-2.78**				
Sharing Programs	2.78**	6.13**			
Sharing Teachers	2.92**	6.40**	.70		
Sharing Facilities	1.74	5.14**	-1.82	-2.31*	
Sharing Administrators	1.57	4.62**	-1.40	-2.01	.20

*p<.05
**p<.01

Ho_4: When efficiency is introduced as a consideration, there are no differences in preferences among the six alternatives for all groups combined.

Table 13 reports the results of the analysis of variance among the means of six alternatives available to rural school districts when efficiency is introduced as a consideration, using data from all groups combined. The F value was significant at the .01 level, resulting in a rejection of the null hypothesis. Details of the specific differences between each pair of means are reported in Table 14.

Table 13

Analysis of Variance Among the Means of Six Alternatives Available to Rural School Districts when Efficiency is Introduced as a Consideration, Using Data from all Groups Combined

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	5	319.16	63.83	21.95**
Within	505	1468.33	2.91	
Total	510	1787.49		

**p<.01

Table 14 reports the results of the values for differences between all pairs of means for six alternatives available to rural school districts when efficiency is introduced as a consideration, using data from all groups combined. A significant t-value indicates a preference by the respondents for one alternative over another. The significantly different preferences are as follows:

Sharing teachers was preferable to sharing programs, voluntary reorganization, and increasing local taxes.

Sharing administrators was preferable to voluntary reorganization and increasing local taxes.

Sharing programs was preferable to voluntary reorganization and increasing local taxes.

Sharing facilities was preferable to voluntary reorganization and increasing local taxes.

Table 14

t-Values for Differences Between Each Pair of Means for Six Alternatives Available to Rural School Districts when Efficiency is Introduced as a Consideration, Using Data from all Groups Combined (columns minus rows)

Alternative	Voluntary Reorganization	Increasing Local Taxes	Sharing Programs	Sharing Teachers	Sharing Facilities
Increasing Local Taxes	-.29				
Sharing Programs	4.63**	5.60**			
Sharing Teachers	6.23**	6.59**	2.11**		
Sharing Facilities	5.14**	6.50**	.22	-1.85	
Sharing Administrators	5.27**	6.10**	1.44	-1.40	.54

*p<.05
**p<.01

Ho_5: When transportation is introduced as a consideration, there are no differences in preferences among the six alternatives for all groups combined.

Table 15 reports the results of the analysis of variance among the means of six alternatives available to rural school districts when transportation is introduced as a consideration using data from all groups combined. The F value was significant at the .01 level, resulting in a rejection of the null hypothesis. Details of the specific differences between each pair of means are reported in Table 16.

Table 15

Analysis of Variance Among the Means of Six Alternatives Available to Rural School Districts when Transportation is Introduced as a Consideration, Using Data from all Groups Combined

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	5	396.41	79.28	28.72**
Within	505	1394.25	2.76	
Total	510	1790.66		

**p<.01

Table 16 reports the results of the t-values for differences between all pairs of means for six alternatives available to rural school districts when transportation is introduced as a consideration, using data from all groups combined. A significant t-value indicates a preference by the respondents for one alternative over another. The

significantly different preferences are as follows:

Sharing teachers was preferable to sharing facilities, sharing programs, voluntary reorganization, and increasing local taxes.

Sharing administrators was preferable to sharing facilities, sharing programs, voluntary reorganization and increasing local taxes.

Sharing programs was preferable to voluntary reorganization and increasing local taxes.

Sharing facilities was preferable to voluntary reorganization and increasing local taxes.

Increasing local taxes was preferable to voluntary reorganization.

Table 16

t-Values for Differences Between Each Pair of Means for Six Alternatives Available to Rural School Districts when Transportation is Introduced as a Consideration, Using Data from all Groups Combined (columns minus rows)

Alternative	Voluntary Reorganization	Increasing Local Taxes	Sharing Programs	Sharing Teachers	Sharing Facilities
Increasing Local Taxes	2.94**				
Sharing Programs	2.42**	6.48**			
Sharing Teachers	5.56**	9.28**	4.53**		
Sharing Facilities	2.69**	7.38**	.39	-3.52**	
Sharing Administrators	6.20**	10.67**	3.56**	-0.09	3.44**

*p<.05
**p<.01

Ho_6: When no considerations are introduced, there are no differences in teachers' preferences among the six alternatives.

Table 17 reports the results of the analysis of variance among the means of six alternatives available to rural school districts, as ranked by teachers. The F value was not significant; therefore, the null hypothesis retained.

Table 17

Analysis of Variance Among the Means of Six Alternatives Available to Rural School Districts, as Ranked by Teachers

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	5	37.17	7.43	.06
Within	120	408.16	3.40	
Total	125	445.33		

Ho_7: When no considerations are introduced, there are no differences in parents' preferences among the six alternatives.

Table 18 reports the results of the analysis of variance among the means of six alternatives available to rural school districts as ranked by parents. The F value was significant at the .01 level, resulting in a rejection of the null hypothesis. Details of the specific differences between each pair of means are reported in Table 19.

Table 18

Analysis of Variance Among the Means of Six Alternatives Available to Rural School Districts, as Ranked by Parents

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	5	149.36	29.87	12.98**
Within	110	253.13	2.30	
Total	115	402.49		

**p<.01

Table 19 reports the results of the t-values for differences between all pairs of means for six alternatives available to rural school districts as ranked by parents. A significant t-value indicates a preference by the respondents for one alternative over another. The significantly different preferences are as follows:

Sharing teachers was preferable to sharing administrators, sharing facilities, sharing programs, increasing local taxes, and voluntary reorganization.

Sharing programs was preferable to voluntary reorganization and increasing local taxes.

Sharing facilities was preferable to voluntary reorganization and increasing local taxes.

Sharing administrators was preferable to voluntary reorganization and increasing local taxes.

Table 19

t-Values for Differences Between Each Pair of Means for Six Alternatives Available to Rural School Districts as Ranked by Parents (columns minus rows)

Alternative	Voluntary Reorganization	Increasing Local Taxes	Sharing Programs	Sharing Teachers	Sharing Facilities
Increasing Local Taxes	.30				
Sharing Programs	4.33**	2.56**			
Sharing Teachers	9.77**	5.82**	4.81**		
Sharing Facilities	4.16**	4.40**	.31	-3.82**	
Sharing Administrators	4.44**	2.85**	.56	02.51*	.46

*p<.05
**p<.01

Ho_8: When no considerations are introduced, there are no differences in students' preferences among the six alternatives.

Table 20 reports the results of the analysis of variance among the means of six alternatives available to rural school districts as ranked by students. The F value was significant at the .01 level, resulting in a rejection of the null hypothesis. Details of the specific differences between each pair of means are reported in Table 21.

Table 20

Analysis of Variance Among the Means of Six Alternatives Available to Rural School Districts, as Ranked by Students

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	5	77.98	15.60	5.20**
Within	120	359.52	2.99	
Total	125	437.50		

**p<.01

Table 21 reports the results of the t-values for differences between all pairs of means for six alternatives available to rural school districts as ranked by students. A significant t-value indicates a preference by the respondents for one alternative over another. The significantly different preferences are as follows:

> Sharing teachers was preferable to sharing administrators, sharing facilities, sharing programs, increasing local taxes, and voluntary reorganization.
>
> Sharing programs was preferable to increasing local taxes.
>
> Sharing facilities was preferable to increasing local taxes.
>
> Sharing administrators was preferable to increasing local taxes.

Table 21

t-Values for Differences Between Each Pair of Means for Six Alternatives Available to Rural School Districts as Ranked by Students (columns minus rows)

Alternative	Voluntary Reorganization	Increasing Local Taxes	Sharing Programs	Sharing Teachers	Sharing Facilities
Increasing Local Taxes	-.48				
Sharing Programs	1.35	2.36**			
Sharing Teachers	3.49**	4.66**	4.20**		
Sharing Facilities	1.73	2.70**	.49	-2.03*	
Sharing Administrators	1.19	2.20*	.44	-2.23*	0.00

*p<.05
**p<.01

Ho_9: When no considerations are introduced, there are no differences in administrators' preferences among the six alternatives.

Table 22 reports the results of the analysis of variance among the means of six alternatives available to rural school districts as ranked by administrators. The F value was significant at the .01 level, resulting in a rejection of the null hypothesis. Details of the specific differences between each pair of means are reported in Table 23.

Table 22

Analysis of Variance Among the Means of Six Alternatives Available to Rural School Districts, as Ranked by Administrators

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	5	88.12	17.62	8.29**
Within	50	106.21	2.12	
Total	55	194.33		

**p<.01

Table 23 reports the results of the t-values for differences between all pairs of means for six alternatives available to rural school districts as ranked by administrators. A significant t-value indicates a preference by the respondents for one alternative over another. The significantly different preferences are as follows:

Sharing teachers was preferable to sharing programs, voluntary reorganization, and increasing local taxes.

Sharing programs was preferable to increasing local taxes.

Sharing facilities was preferable to voluntary reorganization and increasing local taxes.

Sharing administrators was preferable to increasing local taxes.

Table 23

t-Values for Differences Between Each Pair of Means for Six Alternatives Available to Rural School Districts as Ranked by Administrators (columns minus rows)

Alternative	Voluntary Reorganization	Increasing Local Taxes	Sharing Programs	Sharing Teachers	Sharing Facilities
Increasing Local Taxes	-1.43				
Sharing Programs	1.58	5.45**			
Sharing Teachers	3.27**	17.10**	3.32**		
Sharing Facilities	2.54**	5.86**	.74	-2.14	
Sharing Administrators	1.67	4.53**	1.47	-1.85	0.00

**p<.01

Ho_{10}: When no considerations are introduced, there are no differences in board members' preferences among the six alternatives.

Table 24 reports the results of the analysis of variance among the means of six alternatives available to rural school districts as ranked by board members. The F value was significant at the .01 level, resulting in a rejection of the null hypothesis. Details of the specific differences between each pair of means are reported in Table 25.

Table 24

Analysis of Variance Among the Means of Six Alternatives Available to Rural School Districts, as Ranked by Board Members

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	5	122.18	24.44	10.45**
Within	90	210.32	2.34	
Total	95	332.50		

**p<.01

Table 25 reports the results of the values for differences between all pairs of means for six alternatives available to rural school districts as ranked by board members. A significant t-value indicates a preference by the respondents for one alternative over another. The significantly different preferences are as follows:

Sharing teachers was preferable to sharing facilities, sharing administrators, voluntary reorganization, and increasing local taxes.

Sharing programs was preferable to voluntary reorganization and increasing local taxes.

Sharing facilities was preferable to voluntary reorganization and increasing local taxes.

Increasing local taxes was preferable to voluntary reorganization.

Table 25

t-Values for Differences Between Each Pair of Means for Six Alternatives Available to Rural School Districts as Ranked by Board Members (columns minus rows)

Alternative	Voluntary Reorganization	Increasing Local Taxes	Sharing Programs	Sharing Teachers	Sharing Facilities
Increasing Local Taxes	2.52*				
Sharing Programs	4.65**	2.25*			
Sharing Teachers	8.06**	4.39**	1.41		
Sharing Facilities	3.74**	1.48	-1.23	-2.75*	
Sharing Administrators	6.48**	2.55**	-.38	-2.45*	.46

*p<.05
**p<.01

Ho_{11}: There is no difference in priority among the four considerations for all groups combined.

Table 26 reports the results of the analysis of variance among the mean rankings of importance of four considerations using data from all groups combined. The F value was significant at the .01 level resulting in a rejection of the null hypothesis. Details of the specific differences between each pair of means are reported in Table 27.

Table 26

Analysis of Variance Among the Mean Rankings of Importance of Four Considerations Using Data from all Groups Combined

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	3	284.58	94.86	122.61**
Within	303	234.42	.77	
Total	306	519.00		

**p<.01

Table 27 reports the results of the values for differences between all pairs of means for four considerations using data from all groups combined. A significant t-value indicates a preference by the respondents for one consideration over another. The significantly different preferences are as follows:

Quality was preferable to cost, efficiency, and transportation.

Efficiency was preferable to cost and transportation.

Cost was preferable to transportation.

Table 27

t-Values for Differences Between Each Pair of Means for Four Considerations Using Data from all Groups Combined (columns minus rows)

CONSIDERATION	TRANSPORTATION	EFFICIENCY	QUALITY
EFFICIENCY	11.80**		
QUALITY	24.16**	9.99**	
COST	4.37**	-4.17**	-13.40**

**p<.01

Ho_{12}: There are no relationships among the five groups rankings of the four considerations.

Table 28 reports the Spearman Rho Correlation Coefficients for the rank order of mean rankings of four considerations by pairs of groups. The correlations were not only highly significant, but were perfect positive in all cases, thus rejecting the null hypothesis. The mean rankings for each of the four considerations by the five groups were in the same order. The order, from most to least important consideration was quality, efficiency, cost, and transportation.

Ho_{13}: There are no relationships among the five groups total rankings of the six alternatives.

Table 29 reports a Pearson Product Moment Correlation Coefficient Matrix for the rank order of mean rankings of six alternatives by pairs of groups. The null hypothesis

was rejected. All groups with the exception of teachers showed a significant positive correlation with each other.

Table 28

Spearman Rho Correlation Coefficients for the Rank Order of Mean Rankings of Four Considerations by Pairs of Groups

Groups	Teachers	Parents	Students	Administrators
Parents	1.00**			
Students	1.00**	1.00**		
Administrators	1.00**	1.00**	1.00**	
Board Members	1.00**	1.00**	1.00**	1.00**

**p<.01

Table 29

Pearson Product Moment Correlation Coefficients for the Rank Order of Mean Rankings of Six Alternatives by Pairs of Groups

Groups	Teachers	Parents	Students	Administrators
Parents	-.01			
Students	.07	.99**		
Administrators	.20	.95**	.98**	
Board Members	-.21	.95**	.88**	.83*

*p<.05
**p<.01

Ho_{14}: There are no relationships among the five groups total rankings of the six alternatives when cost is introduced as a consideration.

Table 30 reports the Pearson Product Moment Correlation Coefficient Matrix for the rank order of mean rankings of six alternatives by pairs of groups when cost is introduced as a consideration. The null hypothesis was rejected. All groups with the exception of teachers showed a significant positive correlation with each other.

Table 30

Pearson Product Moment Correlation Coefficients for the Rank Order of Mean Rankings of Six Alternatives by Pairs of Groups when Cost is Introduced as a Consideration

Groups	Teachers	Parents	Students	Administrators
Parents	.42			
Students	.47	.93**		
Administrators	.19	.86*	.78*	
Board Members	.15	.94**	.85*	.90**

*p<.05
**p<.01

HO_{15}: There are no relationships among the five groups total rankings of the six alternatives when quality is introduced as a consideration.

Table 31 reports the Pearson Product Moment Correlation Coefficient Matrix for the rank order of mean

rankings of six alternatives by pairs of groups when quality is introduced as a consideration. The null hypothesis was rejected. All groups with the exception of teachers showed a significant positive correlation with each other.

Table 31

Pearson Product Moment Correlation Coefficients for the Rank Order of Mean Rankings of Six Alternatives by Pairs of Groups when Quality is Introduced as a Consideration

Groups	Teachers	Parents	Students	Administrators
Parents	-.33			
Students	-.19	.92**		
Administrators	-.26	.78**	.82*	
Board Members	-.39	.86*	.80*	.95**

*p<.05
**p<.01

Ho_{16}: There are no relationships among the five groups total rankings of the six alternatives when efficiency is introduced as a consideration.

Table 32 reports the Pearson Product Moment Correlation Coefficient Matrix for the rank order of mean rankings of six alternatives by pairs of groups when efficiency is introduced as a consideration. The null hypothesis was rejected. All groups with the exception of teachers showed a significant positive correlation with each other.

Table 32

Pearson Product Moment Correlation Coefficients for the Rank Order of Mean Rankings of Six Alternatives by Pairs of Groups when Efficiency is Introduced as a Consideration

Groups	Teachers	Parents	Students	Administrators
Parents	.09			
Students	-.06	.89**		
Administrators	-.08	.97**	.95**	
Board Members	-.18	.89**	.94**	.95**

*p<.05
**p<.01

Ho_{17}: There are no relationships among the five groups total rankings of the six alternatives when transportation is introduced as a consideration.

Table 33 reports the Pearson Product Moment Correlation Coefficient Matrix for the rank order of mean rankings of six alternatives by pairs of groups when transportation is introduced as a consideration. The null hypothesis was rejected. All groups with the exception of teachers showed a significant positive correlation with each other.

Table 33

Pearson Product Moment Correlation Coefficients for the Rank Order of Mean Rankings of Six Alternatives by Pairs of Groups when Transportation is Introduced as a Consideration

Groups	Teachers	Parents	Students	Administrators
Parents	.12			
Students	.53	.87*		
Administrators	.24	.99**	.91**	
Board Members	-.09	.92**	.77**	.90**

*p<.05
**p<.01

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Restatement of the Problem

This study was concerned with the preferences of students, teachers, parents, school board members, and administrators in school districts representative of the fifty smallest K-12 public school districts in Iowa, toward selected alternatives available to rural school districts.

The study analyzed the following: (1) which of the selected alternatives (sharing administrators, sharing teachers, sharing programs, sharing facilities, voluntary reorganization, or increasing local taxes) are most preferred by the groups studied, (2) which of the selected alternatives are most preferred when the four considerations of quality, efficiency, cost, and transportation are introduced, (3) the relationship of the five groups' rankings of the four considerations, and (4) the relationship of the five groups' rankings of the six alternatives.

Summary of Findings

Following is a summary of the findings of this study:

I. A. In determining which of the six selected alternatives available to rural school districts were preferred by the five groups studied, using data from all groups combined, the following significant differences were found:

1. Sharing teachers was preferable to sharing facilities, sharing administrators, sharing programs, voluntary reorganization, and increasing local taxes.

2. Sharing programs was preferable to voluntary reorganization and increasing local taxes.

3. Sharing facilities was preferable to voluntary reorganization and increasing local taxes.

4. Sharing administrators was preferable to voluntary reorganization and increasing local taxes.

In delineating the preferences by group, certain differences were found:

B. Teachers: There were no significant differences in teachers' preferences among the six alternatives.

C. Parents: Significant differences revealed that:

1. Sharing teachers was preferable to sharing facilities, sharing administrators, sharing programs, voluntary reorganization, and increasing local taxes.

2. Sharing programs was preferable to voluntary reorganization and increasing local taxes.

3. Sharing facilities was preferable to voluntary reorganization and increasing local taxes.

4. Sharing administrators was preferable to voluntary reorganization and increasing local taxes.

D. Students: Significant differences revealed that:

1. Sharing teachers was preferable to sharing facilities, sharing administrators, sharing programs, voluntary reorganization, and increasing local taxes.

2. Sharing programs was preferable to increasing local taxes.

3. Sharing facilities was preferable to increasing local taxes.

4. Sharing administrators was preferable to increasing local taxes.

E. Administrators: Significant differences revealed that:

1. Sharing teachers was preferable to sharing programs, voluntary reorganization, and increasing local taxes.

2. Sharing programs was preferable to increasing local taxes.

3. Sharing facilities was preferable to voluntary reorganization and increasing local taxes.

4. Sharing administrators was preferable to increasing local taxes.

F. Board members: Significant differences revealed that:

1. Sharing teachers was preferable to sharing facilities, sharing administrators, voluntary reorganization, and increasing local taxes.

2. Sharing programs was preferable to voluntary reorganization and increasing local taxes.

3. Sharing facilities was preferable to voluntary reorganization.

4. Sharing administrators was preferable to voluntary reorganization and increasing local taxes.

5. Increasing local taxes was preferable to voluntary reorganization.

II. In determining which of the six selected alternatives available to rural school districts were preferred by the five groups studied when the four considerations of cost, quality, efficiency, and transportation were introduced, using data from all groups combined, the following significant differences were found:

A. When considering cost:

1. Sharing teachers was preferable to sharing facilities, sharing programs, voluntary reorganization, and increasing local taxes.

2. Sharing administrators was preferable to sharing facilities, voluntary reorganization, and increasing local taxes.

3. Sharing programs was preferable to voluntary reorganization and increasing local taxes.

4. Sharing facilities was preferable to voluntary reorganization and increasing local taxes.

B. When considering quality:

1. Sharing teachers was preferable to sharing facilities, sharing administrators, voluntary reorganization, and increasing local taxes.

2. Sharing administrators was preferable to increasing local taxes.

3. Sharing programs was preferable to voluntary reorganization and increasing local taxes.

4. Sharing facilities was preferable to increasing local taxes.

5. Voluntary reorganization was preferable to increasing local taxes.

C. When considering efficiency:

1. Sharing teachers was preferable to sharing programs, voluntary reorganization, and increasing local taxes.

2. Sharing administrators was preferable to voluntary reorganization and increasing local taxes.

3. Sharing programs was preferable to voluntary reorganization and increasing local taxes.

4. Sharing facilities was preferable to voluntary reorganization and increasing local taxes.

D. When considering transportation:

1. Sharing teachers was preferable to sharing facilities, sharing programs, voluntary reorganization, and increasing local taxes.

2. Sharing administrators was preferable to sharing facilities, sharing programs, voluntary reorganization, and increasing local taxes.

3. Sharing programs was preferable to voluntary reorganization and increasing local taxes.

4. Sharing facilities was preferable to voluntary reorganization and increasing local taxes.

5. Increasing local taxes was preferable to voluntary reorganization.

III. In determining the relationship of the five groups' rankings of the four considerations of cost, quality, efficiency, and transportation, the study revealed a perfect positive correlation. All five groups ranked the consideration in the following order of highest to lowest priority.

Quality
Efficiency
Cost
Transportation

IV. In determining the relationship of the five groups' total rankings of the six alternatives the following correlations were found:

A. When no considerations were introduced, parent, student, administrator, and board member preferences were significantly related in a positive direction. Teacher preferences were not significantly related to the preferences of any other group.

B. When cost was introduced, parent, student, administrator, and board member preferences were significantly related in a positive direction. Teacher preferences were not significantly related to the preferences of any other group.

C. When quality was introduced, parent, student, administrator, and board member preferences were significantly related in a positive direction. Teacher preferences were not significantly related to the preferences of any other group.

D. When efficiency was introduced, parent, student, administrator, and board member preferences were significantly related in a positive direction. Teacher preferences were not significantly related to the preferences of any other group.

E. When transportation was introduced, parent, student, administrator, and board member preferences were significantly related in a positive direction. Teacher preferences were not significantly related to the preferences of any other group.

Conclusions

According to the teachers, parents, students, school board members, and administrators representative of the fifty smallest K-12 public school districts in Iowa, using the means from all groups combined (Table 34), the most preferred alternative for educational programming was sharing teachers. The least preferred was voluntary reorganization. The teachers preferred sharing administrators while the other four groups preferred sharing teachers. Parents and board members least preferred increasing local taxes, while teachers, students, and administrators least preferred voluntary reorganization. In interpreting the following tables of group means it should be kept in mind that the lowest number is the most preferred choice and the highest number is the least preferred.

When introducing cost as a consideration (Table 35), using data from all groups combined, sharing teachers is again the most preferred alternative and voluntary reorganization the least preferred. Teachers are again the only group to prefer sharing administrators over all other alternatives.

The introduction of quality as a consideration (Table 36) provoked a change in priority for the students, teachers, and administrators, as only the board members and parents ranked sharing teachers as their first choice. Teachers indicated that increasing local taxes was their

Table 34

Group Means of Alternatives with no Consideration

Alternatives	Teachers	Parents	Students	Administrators	Board Members	Overall
Sharing Administrators	2.73	3.00	3.24	2.90	3.05	2.99
Sharing Facilities	3.80	3.16	3.24	2.90	3.31	3.34
Sharing Teachers	3.65	1.87	2.32	1.90	2.15	2.47
Sharing Programs	3.76	3.29	3.44	3.27	2.84	3.36
Voluntary Reorganization	4.23	4.58	4.52	5.45	4.31	4.52
Increasing Local Taxes	2.84	4.92	4.24	4.45	5.31	4.27

□ = Most Preferred

○ = Least Preferred

Table 35

Group Means of Alternatives with Cost as a Consideration

Alternatives	Teachers	Parents	Students	Administrators	Board Members	Overall
Sharing Administrators	2.34	2.79	2.76	3.90	3.31	2.88
Sharing Facilities	3.73	3.54	3.28	3.00	2.89	3.35
Sharing Teachers	3.50	2.12	2.20	1.90	2.36	2.50
Sharing Programs	3.73	2.70	3.56	2.72	2.52	3.13
Voluntary Reorganization	4.34	4.87	4.52	5.18	4.63	4.64
Increasing Local Taxes	3.26	4.96	4.64	4.17	4.94	4.39

□ = Most Preferred

○ = Least Preferred

Table 36

Group Means of Alternatives with Quality as a Consideration

Alternatives	Teachers	Parents	Students	Administrators	Board Members	Overall
Sharing Administrators	3.19	3.04	3.04	4.00	4.00	3.35
Sharing Facilities	3.96	3.37	3.16	3.09	2.89	3.35
Sharing Teachers	3.57	2.45	3.12	2.72	2.10	2.85
Sharing Programs	3.88	2.91	2.88	2.27	2.47	3.00
Voluntary Reorganization	4.19	4.41	4.64	4.81	4.73	4.51
Increasing Local Taxes	2.22	4.60	4.16	4.00	4.36	3.81

□ = Most Preferred

○ = Least Preferred

preference when quality was introduced, and both students and administrators chose sharing programs to be their most preferred by all groups with the exception of parents, who ranked increasing local taxes last.

The introduction of efficiency as a consideration (Table 37) indicated teachers again preferred to share administrators first, while board members ranked sharing programs as their preference. Parents, students, and administrators preferred to share teachers first. Increasing local taxes was least preferred by parents, administrators, and board members, while teachers and students preferred voluntary reorganization least of all the alternatives.

The introduction of transportation as the consideration (Table 38) reveals that teachers and students preferred sharing administrators first, while the other three groups ranked sharing teachers first. Parents were the only group not ranking voluntary reorganization as the least preferred alternative, as they indicated increasing local taxes to be their least preferred alternative.

The next five tables report the group means by individual group, ranking the six alternatives with and without the considerations. Again, the lower the number, the higher the preference, and the higher the number, the lower the preference.

Table 39 reports that teachers preferred sharing administrators over all other alternatives except when

Table 37

Group Means of Alternatives with Efficiency as a Consideration

Alternatives	Teachers	Parents	Students	Administrators	Board Members	Overall
Sharing Administrators	2.46	2.79	3.48	3.27	3.26	3.00
Sharing Facilities	3.76	2.83	2.92	2.81	3.00	3.11
Sharing Teachers	3.61	2.08	2.88	1.90	2.57	2.72
Sharing Programs	3.92	3.33	2.88	2.81	2.36	3.14
Voluntary Reorganization	4.26	4.58	4.52	4.90	4.36	4.48
Increasing Local Taxes	3.03	5.16	4.32	5.27	5.00	4.42

□ = Most Preferred ○ = Least Preferred

Table 38

Group Means of Alternatives with Transportation as a Consideration

Alternatives	Teachers	Parents	Students	Administrators	Board Members	Overall
Sharing Administrators	2.42	2.70	2.36	2.72	3.10	2.62
Sharing Facilities	3.96	3.33	3.24	3.45	2.57	3.34
Sharing Teachers	3.46	1.83	2.76	2.18	2.36	2.59
Sharing Programs	4.26	3.08	3.68	3.18	2.57	3.43
Voluntary Reorganization	4.46	4.91	4.92	5.00	5.15	4.85
Increasing Local Taxes	2.57	4.96	4.04	4.45	4.94	4.10

□ = Most Preferred

○ = Least Preferred

Table 39

Group Means of Alternatives with Considerations as Ranked by Teachers

Alternatives	No Considerations	Cost	Quality	Efficiency	Transportation
Sharing Administrators	2.73	2.34	3.19	2.46	2.42
Sharing Facilities	3.80	3.73	3.96	3.76	3.96
Sharing Teachers	3.65	3.50	3.57	3.61	3.46
Sharing Programs	3.76	3.73	3.88	3.92	4.26
Voluntary Reorganization	4.23	4.34	4.19	4.26	4.46
Increasing Local Taxes	2.84	3.26	2.20	3.03	2.57

□ = Most Preferred ○ = Least Preferred

quality was introduced as a consideration, resulting in increasing local taxes as the most preferred alternative. Teachers ranked voluntary reorganization last in all instances of considerations.

Table 40 reports that parents most preferred sharing teachers and least preferred increasing local taxes regardless of considerations.

Table 41 reports that students preferred to share teachers with no considerations and when cost or efficiency were introduced. Students preferred sharing programs when quality and efficiency were introduced. When considering transportation, they most preferred to share administrators. Students least preferred voluntary reorganization in all instances except when cost was introduced, in which case they preferred increasing local taxes.

Table 42 reports that administrators preferred to share teachers except when quality was introduced as a consideration, in which case they preferred to share programs. The least preferred alternative was voluntary reorganization except when efficiency was introduced as a consideration, in which case they preferred increasing local taxes.

Table 43 reports that school board members preferred to share teachers except when efficiency was introduced as a consideration, in which case they preferred to share programs. The least preferred alternative was voluntary reorganization except when no considerations and efficiency

Table 40

Group Means of Alternatives with Considerations as Ranked by Parents

Alternatives	No Considerations	Cost	Quality	Efficiency	Transportation
Sharing Administrators	3.00	2.79	3.04	2.79	2.70
Sharing Facilities	3.16	3.54	3.37	2.83	3.33
Sharing Teachers	1.87	2.12	2.45	2.08	1.83
Sharing Programs	3.29	2.70	2.91	3.33	3.08
Voluntary Reorganization	4.58	4.87	4.41	4.58	4.91
Increasing Local Taxes	4.92	4.96	4.60	5.16	4.96

□ = Most Preferred ○ = Least Preferred

Table 41

Group Means of Alternatives with Considerations as Ranked by Students

Alternatives	No Considerations	Cost	Quality	Efficiency	Transportation
Sharing Administrators	3.24	2.76	3.04	3.48	2.36
Sharing Facilities	3.24	3.28	3.16	2.92	3.24
Sharing Teachers	2.32	2.20	3.12	2.88	2.76
Sharing Programs	3.44	3.56	2.88	2.88	3.68
Voluntary Reorganization	4.52	4.52	4.64	4.52	4.92
Increasing Local Taxes	4.24	4.64	4.16	4.32	4.04

□ = Most Preferred ○ = Least Preferred

Table 42

Group Means of Alternatives with Considerations as Ranked by Administrators

Alternatives	No Consideration	Cost	Quality	Efficiency	Transportation
Sharing Administrators	2.90	3.90	4.00	3.27	2.72
Sharing Facilities	2.90	3.00	3.09	2.81	3.45
Sharing Teachers	1.90	1.90	2.72	1.90	2.18
Sharing Programs	3.27	2.72	2.27	2.81	3.18
Voluntary Reorganization	5.45	5.18	4.81	4.90	5.00
Increasing Local Taxes	4.45	4.27	4.00	5.27	4.45

□ = Most Preferred ○ = Least Preferred

Table 43

Group Means of Alternatives with Considerations as Ranked by Board Members

Alternatives	No Consideration	Cost	Quality	Efficiency	Transportation
Sharing Administrators	3.05	3.31	4.00	3.26	3.10
Sharing Facilities	3.31	2.89	2.89	3.00	2.57
Sharing Teachers	2.15	2.36	2.10	2.57	2.36
Sharing Programs	2.84	2.52	2.47	2.36	2.57
Voluntary Reorganization	4.31	4.63	4.73	4.36	5.15
Increasing Local Taxes	5.31	4.54	4.36	5.00	4.54

□ = Most Preferred ○ = Least Preferred

were introduced, in which case they least preferred increasing local taxes.

In determining which of the six alternatives were most preferred to the five groups studied, the general pattern from most to least preferred was: sharing teachers, sharing administrators, sharing facilities or programs, increasing local taxes and voluntary reorganization.

When the four considerations (cost, efficiency, quality, and transportation) were introduced, sharing teachers was again the most preferred alternative, using data from all groups combined. When considering cost and efficiency, voluntary reorganization and increasing local taxes were least preferred. However, when quality was introduced, voluntary reorganization was preferred to increasing local taxes. When transportation was introduced the opposite took place, i.e. increasing local taxes was preferred to voluntary reorganization.

The relationship of the five groups' rankings of the four considerations was a perfect positive one, in that all groups ranked the four considerations in the same priority. From highest to lowest the priority was: quality, efficiency, cost, and transportation.

The relationship of the five groups' rankings of the six alternatives, with and without the four considerations was significantly positive between all groups except teachers, who did not have any significant relationships

with any of the other groups.

Recommendations

Alternative educational programming is available to rural schools as demonstrated by numerous programs throughout the country. The concept of shared services between and among school districts has been successful and seems to be given more consideration as the number of states participating in the various financial and legal structures is increasing. Delivery of student services is being provided through joint ventures which include but are not limited to sharing teachers, sharing administrators, sharing programs, and cooperative purchasing agreements. The use of intermediate service agencies for specialized programming, the sharing of facilities and extra-curricular activities are all educational alternatives for rural schools. In the state of Iowa, the legislature has made it possible for local school district patrons to increase their local taxes for expanded curricular offerings or to maintain their school systems. Many districts are sharing teachers and programs in Iowa, and the legislature also allows for additional funding for those school districts involved with teacher and program sharing. Voluntary reorganization is also an alternative to rural Iowa schools and has been voted successfully in some school districts, as it has been defeated in others, but the choice can be that of the local

school districts patrons.

Based on the findings of this study, school boards and school administrators of Iowa's rural school districts should consider investigating the alternatives available to them as being acceptable to their patrons. Sharing teachers, programs, facilities, and administrators with neighboring districts should be explored as alternatives in offering and maintaining quality educational programming while faced with the constraints of declining enrollments, increased operating costs, limited revenue, and minimum standards. Voluntary reorganization and increasing local taxes, although not as preferred as the other alternatives, have indeed been successful alternatives for many Iowa school districts.

The Iowa Department of Public Instruction should consider studying successful sharing programs to begin to attain answers to the following types of questions: (1) What constitutes a successful sharing program? (2) How do rural school districts begin implementation of shared services? (3) What are the responsibilities of the legislature in providing alternative funding for shared programming? (4) Should teacher training institutions provide greater leadership in meeting the needs of teachers in rural schools? (5) Is there a better method of structuring the current school reorganization law? (6) Can the Iowa Area Education Agencies provide more effective alternative

educational services to rural school districts?

The results of the study have implications for further research regarding the structure of school finance. Transportation was ranked last by all of the groups when the four considerations were prioritized. Should the transportation costs be taken out of the current school budget structure?

More research needs to be done in regard to obtaining input from teachers, students, parents, board members, and administrators regarding the pros and cons of those shared programs and services which currently exist in Iowa and throughout the country.

Procedurally, the researcher would recommend that if a similar study be undertaken, instead of sending questionnaires to all of the teachers, parents, and students, that a specific number be random sampled. This would facilitate the selection process, and could lend to easier follow-up to ensure an equal group size.

How small rural Iowa school districts respond to the effects of declining enrollments, spiraling operational costs, legislatively controlled budgets, and minimum curriculum standards mandated by the state will continue to depend upon the number of alternatives available and the educational leadership of the school boards and administrators. Much more constructive research and dissemination of information is needed for those responsible for making the

decisions regarding alternative educational programming and the relative local impact it may have on Iowa's rural school districts.

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APPENDIX A

IOWA'S FIFTY SMALLEST K-12 PUBLIC SCHOOL DISTRICTS

Iowa's fifty smallest public K-12 school districts by student enrollment as identified by the Iowa State Department of Public Instruction (Spring 1978).

	District Name	1977-78 Enrollment
1.	Rembrandt Cons. Sch. Dist.	121
2.	Clearfield Comm. Sch. Dist.	133
3.	Melvin Comm. Sch. Dist.	156
4.	A C L Comm. Sch. Dist.	156
5.	Rake Comm. Sch. Dist.	159
6.	New Providence Comm.	168
7.	Steamboat Rock Comm.	170
8.	Lakota Cons. Sch. Dist.	176
9.	Collins Comm. Sch. Dist.	176
10.	Ledyard Comm. Sch. Dist.	181
11.	Diagonal Comm. Sch. Dist.	185
12.	Palmer Cons. Sch. Dist.	195
13.	Galva Comm. Sch. Dist.	199
14.	Fremont Comm. Sch. Dist.	212
15.	Prescott Comm. Sch. Dist.	214
16.	Ringsted Comm. Sch. Dist.	218
17.	Goldfield Comm. Sch. Dist.	225
18.	Lu Verne Comm. Sch. Dist.	230
19.	Ocheyedan Comm. Sch. Dist.	232
20.	Ayrshire Cons. Sch. Dist.	238
21.	Havelock-Plover Comm.	239
22.	Lohrville Comm. Sch. Dist.	246
23.	Klemme Comm. Sch. Dist.	249
24.	Lytton Comm. Sch. Dist.	252
25.	Oxford Jct. Cons. Sch. Dist.	252
26.	Green Mountain Ind.	253
27.	Grand Comm. Sch. Dist.	255
28.	Boone Valley Comm.	257
29.	Fonda Comm. Sch. Dist.	259
30.	Burt Comm. Sch. Dist.	260
31.	Meservey-Thornton Comm.	262
32.	Russell Comm. Sch. Dist.	265
33.	Bayard Comm. Sch. Dist.	266
34.	Morning Sun Comm.	266
35.	Ruthven Cons. Sch. Dist.	268
36.	Mallard Comm. Sch. Dist.	270
37.	Fox Valley Comm. Sch. Dist.	272
38.	Woden-Crystal Lake Comm.	276
39.	Little Rock Comm.	276
40.	Dumont Comm. Sch. Dist.	279
41.	Kanawha Comm. Sch. Dist.	279
42.	Sioux Valley Comm.	284
43.	Whiting Comm. Sch. Dist.	285
44.	Deep River-Millersburg	286
45.	East Monona Comm.	287

District Name	1977-78 Enrollment
46. Sioux Rapids Comm.	289
47. Lincoln Central Comm.	290
48. Grand Valley Comm.	297
49. New Market Comm. Sch. Dist.	297
50. Westfield Comm. Sch. Dist.	301

APPENDIX B

NEW PROVIDENCE COMMUNITY SCHOOL DISTRICT QUESTIONNAIRE

VOTER QUESTIONNAIRE

September 13, 1977

(1) Your age bracket: 31 (18-30); 20 (31-40); 26 (41-50); 23 (51-60); 15 (61-70); 1 (70-80); 2 (no answer)

(2) Do you currently have children attending New Providence School? 51 (yes); 67 (no)

(3) How often do you read the school newsletter? 0 (never); 7 (sometimes); 8 (often); 103 (always)

(4) Would you be willing to drop extra-curricular activities to save money? 36 (yes); 12 (some); 60 (no); 4 (no answer)

Comments:
1. Which ones? 2. However feel some are necessary for a well rounded education preparing for the future. 3. Not all. 4. Not only money would be saved! How about time of adults?... 5. Moderate distances traveled for most events. 6. Discipline learned can be worth more than many classes. 7. Depends on which ones. 8. To an extent. 9. Add more not drop. 10. Extra-curricular activities serve a very good purpose but can be carried too far. 11. A few.

(5) Would you support closing the school during severe cold to save on spiraling utility costs? 70 (yes); 32 (no); 5 (maybe); 3 (no answer)

Comments:
1. To a certain extent. 2. In extreme situations. 3. If prolonged period of time. 4. No response or opinion. 5. On necessary days. 6. If absolutely necessary. 7. Not for most weather. 8. Would think school classes should meet but favor closing extra-curricular activities in severe cold weather. 9. Depends. 10. I would but I guess I'm not enthusiastic.

(6) Do you believe that classes with few students (5 or less) suffer from lack of competition and students lose out academically? 44 (yes); 67 (no); 1 (maybe); 1 (no answer)

Comments:
1. Depends on the student. 2. Not necessarily. 3. The additional teacher attention offsets lack of competition. 4. Definitely. 5. Small classes would seem to offer special attention from instructor.

6. Sometimes. 7. Our students record of achievement and continued college education proves it. 8. A good teacher can teach one person as well as 20. Few students make for more competition.

(7) Do you believe the students should be exposed to more than just the minimum course offerings? 84 (yes); 16 (no); 5 (no answer)

Comments:
1. Within reason. 2. Not necessary. 3. If possible. 4. Definitely. 5. In some cases, yes. 6. Teach basics at least first. 7. Get what they need good. 8. High school students don't need special courses. Basics--leave specialization to college. 9. If it is something useful. 10. I understand more and more high school kids are unable to read and write effectively. Isn't it time to return to the basics and when they are mastered, offer the extras. 11. Absolutely. 12. Not when can't afford it.

(8) Do you consider the current costs of operating the school ($375,913 last year) excessive compared to the benefits derived? 9 (yes); 95 (no); 10 (no answer)

Comments:
1. Compared to what? 2. Don't know. 3. Have no basis for comparison.

(9) Do you favor maintaining the state's standards for instruction? 76 (yes); 20 (no); 12 (no answer)

Comments:
1. Not if we can do otherwise. 2. If there's a choice. 3. The school needs to maintain a help quality of education not a lot of extras. 4. Some state requirements are foolish for small schools. 5. In the main. 6. Not entirely. 7. If possible. 8. The legislature should change the states standards. Strongly feel larger school districts create more problems than to eliminate any. 9. If it entitles more forms and reports forget it. 10. Not all the way. 11. If this means quantity rather than quality, no.

(10) Do you believe that various educational alternatives with neighboring districts should be pursued? 99 (yes); 6 (no); 5 (no answer)

Comments:
1. Possible. 2. By all means. 3. Consider. 4. If it works out. 5. There are pros and cons.

(11) To continue providing a quality education, would you support:

(a) Offering various courses at neighboring school attendance centers? 93 (yes); 17 (no); 6 (no answer)

Comments:
1. Maybe. 2. If necessary.

To do this, it could mean transporting students and teachers. Would you still support it? 91 (yes); 17 (no); 5 (no answer)

Comments:
1. Transport teachers. 2. If necessary. 3. Up to a point. 4. Would approve transporting teachers.

(b) Voluntary reorganization with a neighboring district? 39 (yes); 21 (no); 47 (no answer)

Comments:
1. Not yet. 2. Maybe. 3. If necessary. 4. If absolutely necessary. 5. If needed. 6. District. 7. Reluctantly. 8. Depends on future enrollment.

Which ones? 37 (Union-Whitten); 12 (Eldora); 15 (Hubbard); 1 (Radcliffe); 66 (no answer)

Comments:
1. Uncertain. Not Eldora, possibly Union. 2. Under certain conditions. 3. Prefer our own school, but if can't do it would be willing to reorganize. 4. Voluntary. 5. Not Hubbard. 6. Not Eldora, Hubbard. 7. If last resort.

(12) Would you vote for additional local taxation to help funding? 79 (yes); 15 (no); 19 (no answer)

Comments:
1. Some. 2. Possibly. 3. Depends. 4. Not really.

General Comments

1. I am in favor of doing whatever is necessary to maintain the quality of the education offered at the New Providence School. I support the board and superintendent fully.

2. Keep our school.

3. I feel the best thing to do would be consolidation. N.P. has too few children to keep a school going to the best potential.

4. Some of the state's standards are not good.

5. Transporting teachers could be worked out, I think.

6. Sharing teachers is better than hauling bus loads of kids all over the country.

7. We need to work on our legislators to get some changes made.

8. For a small school we have a good one, but I can see where there would be advantages to voluntarily go in with a neighboring district.

9. Before any reorganization is undertaken, a careful look at future long range requirements, state legislation and possible effects should be considered.

10. I think the school board and superintendent are doing a fine job.

11. My concern is quality education for all students. I feel the math and physical science program needs to be improved from kindergarten through high school. Otherwise, I think most courses are pretty good and the students get a good education at our school.

12. This is an excellent idea--let's improve, not just get by. Let's offer courses to meet needs.

13. Keep public informed of decisions early.

14. We are very grateful for the quality education the local system offers.

15. We've got to think about numbers and cost; also look sharply at our weak points and do something about them.

16. The school is bordering on too small. Any reorganization should be done by local schools and not wait until the state department forces it.

17. I think there should be more meetings to explain new programs to parents. As a comparatively "new comer" to the community a Parent-Teacher organization would be of value. Whenever an opening occurs on the staff, part time or full time, I think it should be publicized.

18. I feel the community should really be open in their thinking about reorganization. I feel it would be in the best interests of the students.

19. Offer fundamentals and get them good!

20. They have already found that in other states where there has been consolidation that it did not save money or turn out better students. They decided that the home situation contributed the most as to the child's welfare. Can't we learn by others mistakes?

21. Return more tax collection to the school in the district they are collected from. I don't think the small schools should suffer so the students in larger schools can have free books and other benefits.

22. With a projected high school enrollment in less than 10 years of less than 30 students, we can't afford to keep a high school attendance center or offer quality education. Compare our students' ACT scores with those from larger school districts.

23. Reorganization with another district could be very beneficial, however, our own community would very likely suffer.

24. As a parent and an educator, I feel the importance of quality is foremost and location is secondary, we fully support the school in it's efforts to continue upgrading our children's educational program. Not a question of large vs. small schools, rather taking the best out of Both worlds! Appreciate the open communications about future programs and the opportunity to express opinions.

25. Students graduating from high school should have basic skills in reading, writing, English and math.

26. I prefer a status quote so to speak until it becomes necessary to change, then it must be a slow change.

27. I am for keeping our school as long as educational standards can be maintained. I would like to see us cooperate with neighboring schools for specific courses, but am not in favor of complete reorganization.

28. In regard to #11, I do not see transportation as a problem when so many of our students don't use the buses now. I wonder about the expenditure for gas and buses when they are not used by so many students. I would like to see some plan worked out whereby we share facilities and instructors with our neighboring schools, perhaps all of them, Union, Hubbard or Eldora.

29. I like the one-to-one student-teacher contact we have now.

APPENDIX C

FOUR SCHOOL DISTRICT QUESTIONNAIRE

BEHAVIORAL SCIENCE CONSULTANTS, LTD.
P.O. Box C, I.S.U. Station
Ames, Iowa 50010
(515) 292-3172

The data to be reported are those based upon the needs assessment questionnaire developed by the four district needs assessment council. The return rate of the mailed questionnaires (i.e. parents and adult community members without school age children) was not the anticipated 60 percent. However, the return rate of approximately 50 percent was sufficient to permit the drawing of reliable conclusions.

At the outset, it must be pointed out that there was a general acceptance of the three statements included in the survey. The average responses by any of the twenty samples ranged from 1.37 to 3.67. The majority of the means (averages) were in the 1.5 to 2.5 range. This would be within the range of acceptance as defined on the needs survey.

Looking more closely, one can consider the attitudes toward individual items. Across school districts, greatest acceptance was expressed for having students (9-12) from neighboring schools attend one or more classes in your school (average 2.05). As would be anticipated, this suggestion was met with more acceptance than having local students (grades 9-12) attend one or more classes at neighboring school districts (average 2.24). It was the means of sharing programs,

i.e. bussing students (grades 9-12) between neighboring school districts that was least well accepted (average 2.43). For reference purposes, recall that on the survey a response of one signified strongly accept, a two response signified accept, a three response was no opinion, a four signified reject and a five indicated strongly reject.

The finest level of analysis is in terms of how each separate item was responded to by the samples within each school district. For a consideration of these data, your attention is drawn to the graphs at the end of the final report.

The first school district to be considered is Steamboat Rock. As shown in figure 1, the overall response to the three items parallel the earlier results reported for the four districts as a whole. Item two is accepted most readily followed by items one and three. In terms of the samples, students and teachers are most accepting of sharing. Interestingly, the school board members responding to the survey were less accepting than either parents or adult community members on all three items.

The second school district to be considered is New Providence. While the overall responses to the three items again paralleled the results for the four districts as a whole, a differing pattern of response by sample occurred. As shown in figure 2, at New Providence, reporting school board members and teachers were most accepting. Interestingly,

the students were least accepting of all three propositions. What is it at New Providence that could account for this reversal of trends within the student sample? It would appear that the strongest opposition to any of the three proposals will come from the student population at New Providence.

As shown in figure 3, the pattern of responding at Union-Whitten was similar to the overall pattern of responding. The greatest concern was expressed for bussing with the proposition of sharing being more acceptable.

While students, board members, teachers, and adult community members are most accepting of having local students attend neighboring school districts, the parents appear to have some reservations. When the issue was one of accepting students from neighboring school districts, there was little difference in the opinions expressed by various samples. Also, the general response was one of acceptance.

The responses from the Eldora school district are shown in figure 4. The pattern of responding did not correspond closely to the overall pattern. While Eldora appears to be accepting of students from other districts, they are less enthusiastic about having local students attend classes at neighboring schools. In response to all three items, students and teachers were more accepting than parents and adult community members without school age children.

In summary, the general response characteristics of the various sample are about what would be anticipated. Those who are most directly involved with the day to day activities of schooling (i.e. students, teachers, and board members) tended to be the most accepting. Parents and adult community members without children of school age are least accepting of the hypothetical courses of action. Nevertheless, these differences are relative. The average overall flavor of responding was within the accept to no opinion range.

Figure 1 - Steamboat Rock

S = Students
P = Parents
A = Adults in Community
B = Board
T = Teachers

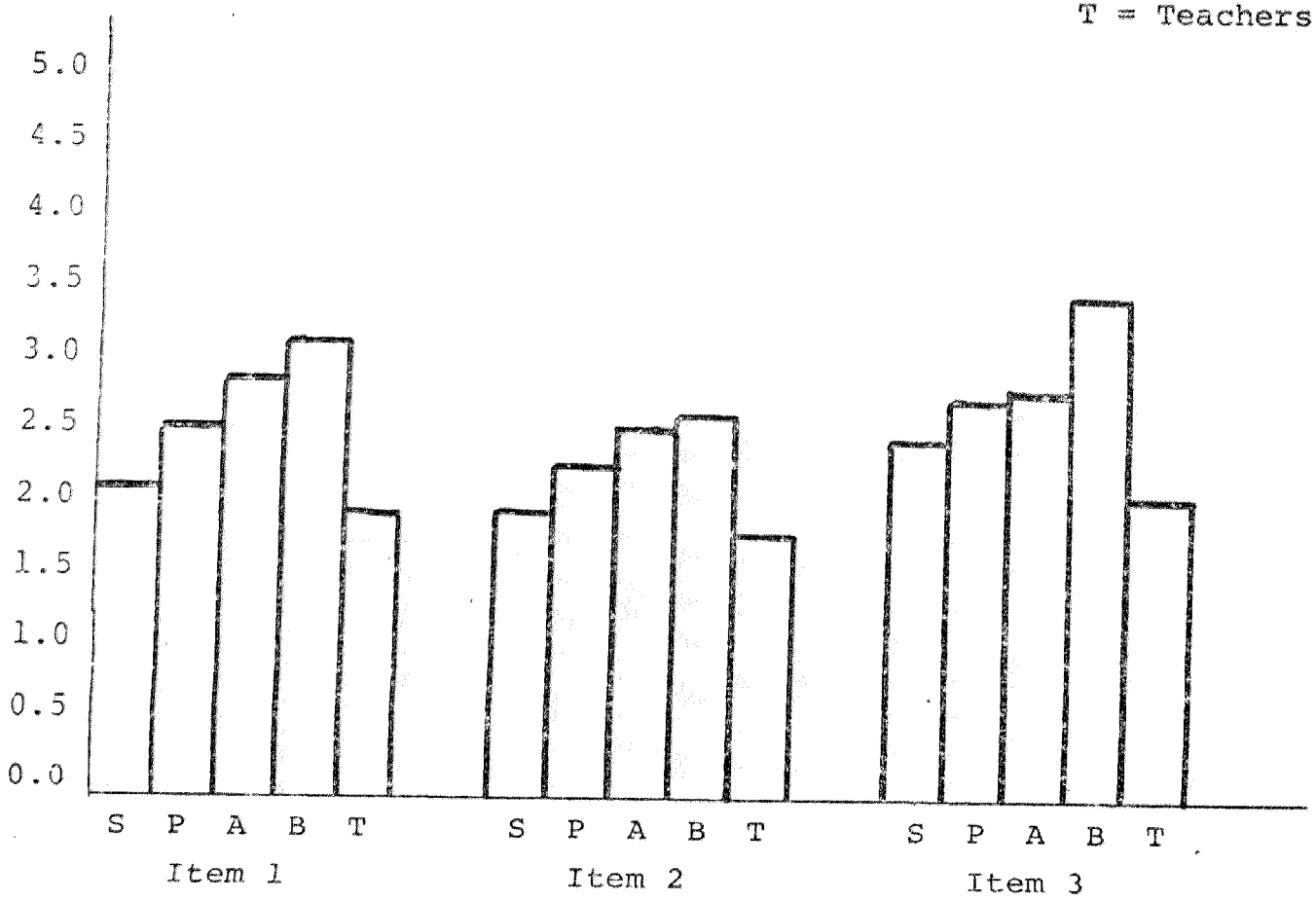


Figure 2 - New Providence

S = Students
P = Parents
A = Adults in Community
B = Board
T = Teachers

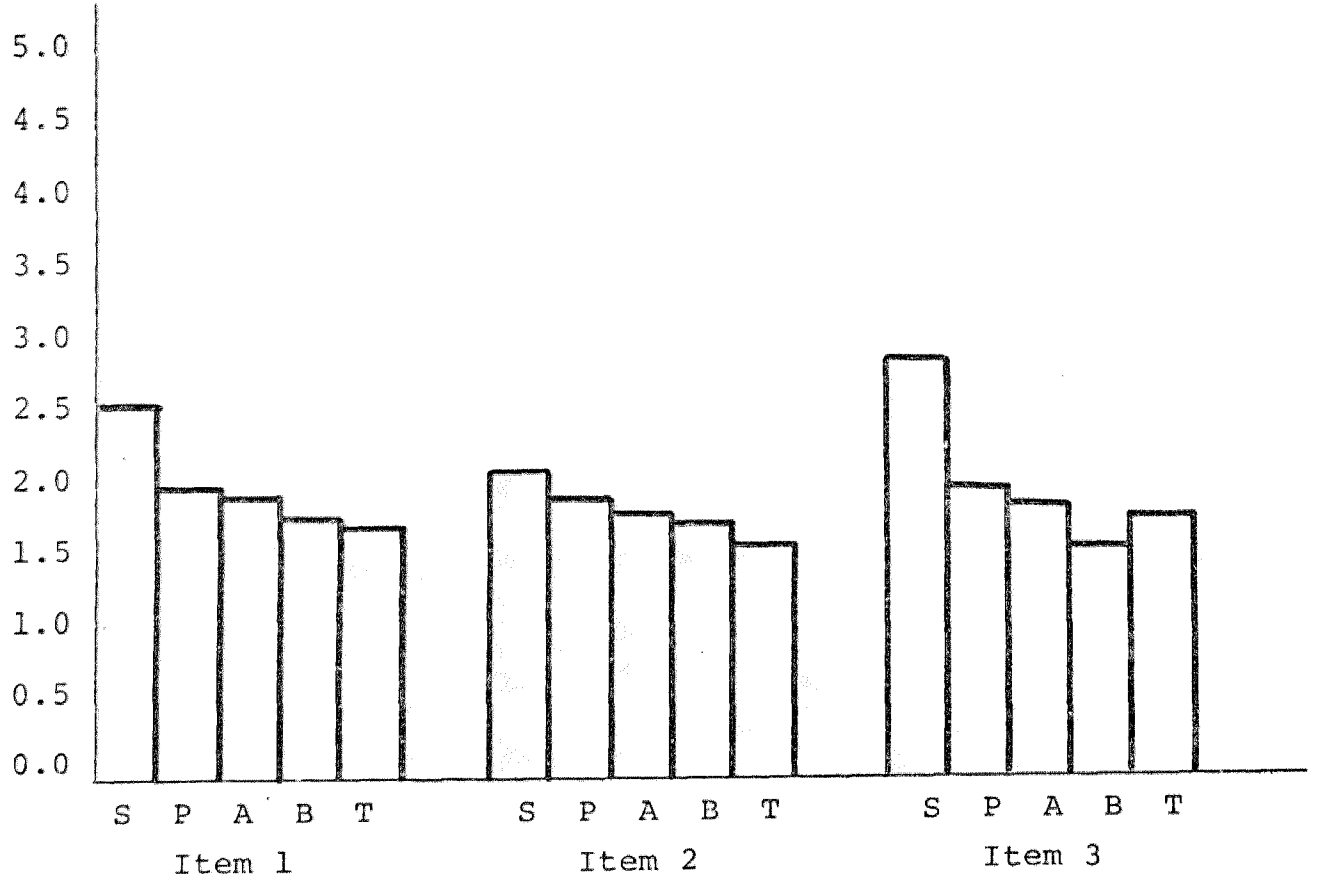


Figure 3 - Union-Whitten

S = Students
P = Parents
A = Adults in Community
B = Board
T = Teachers

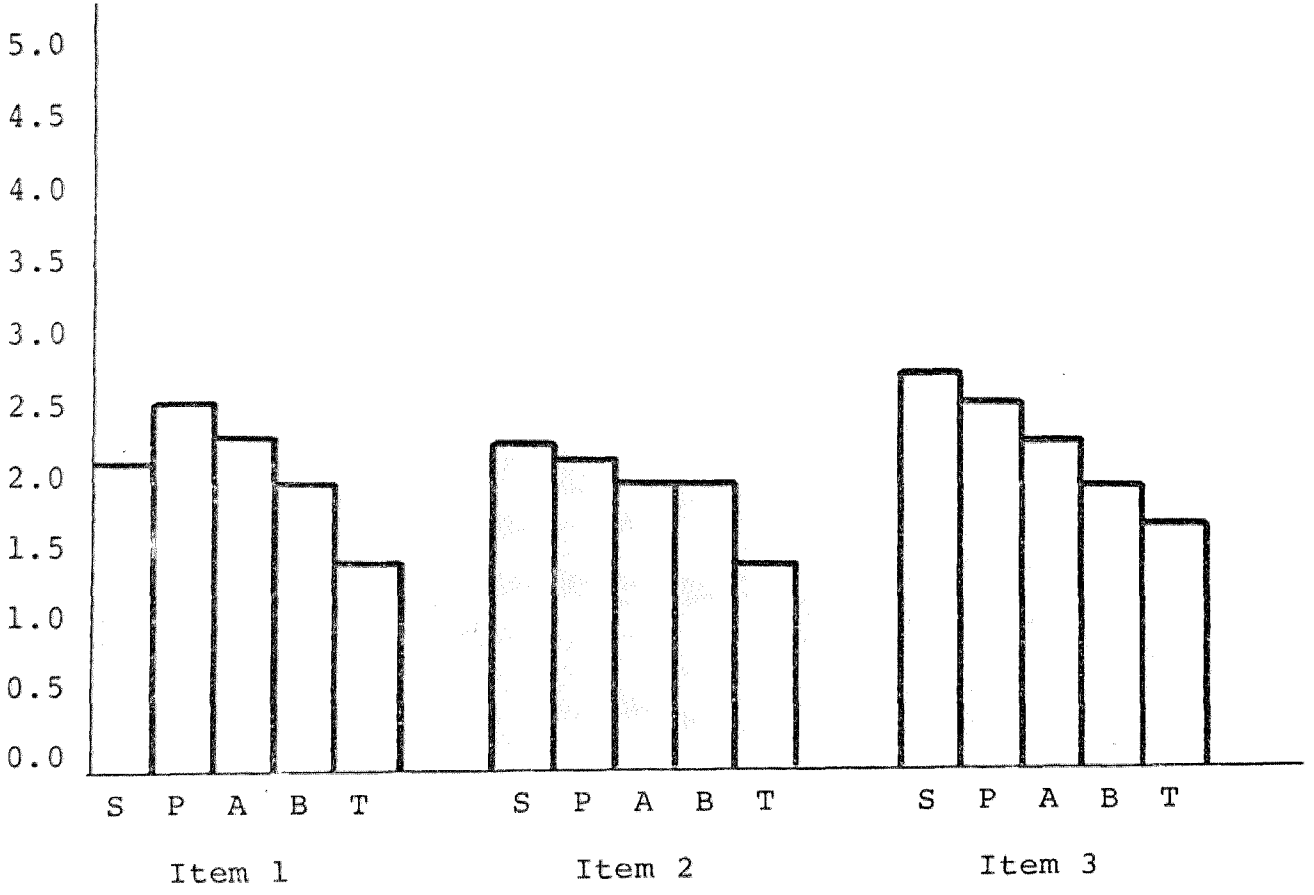
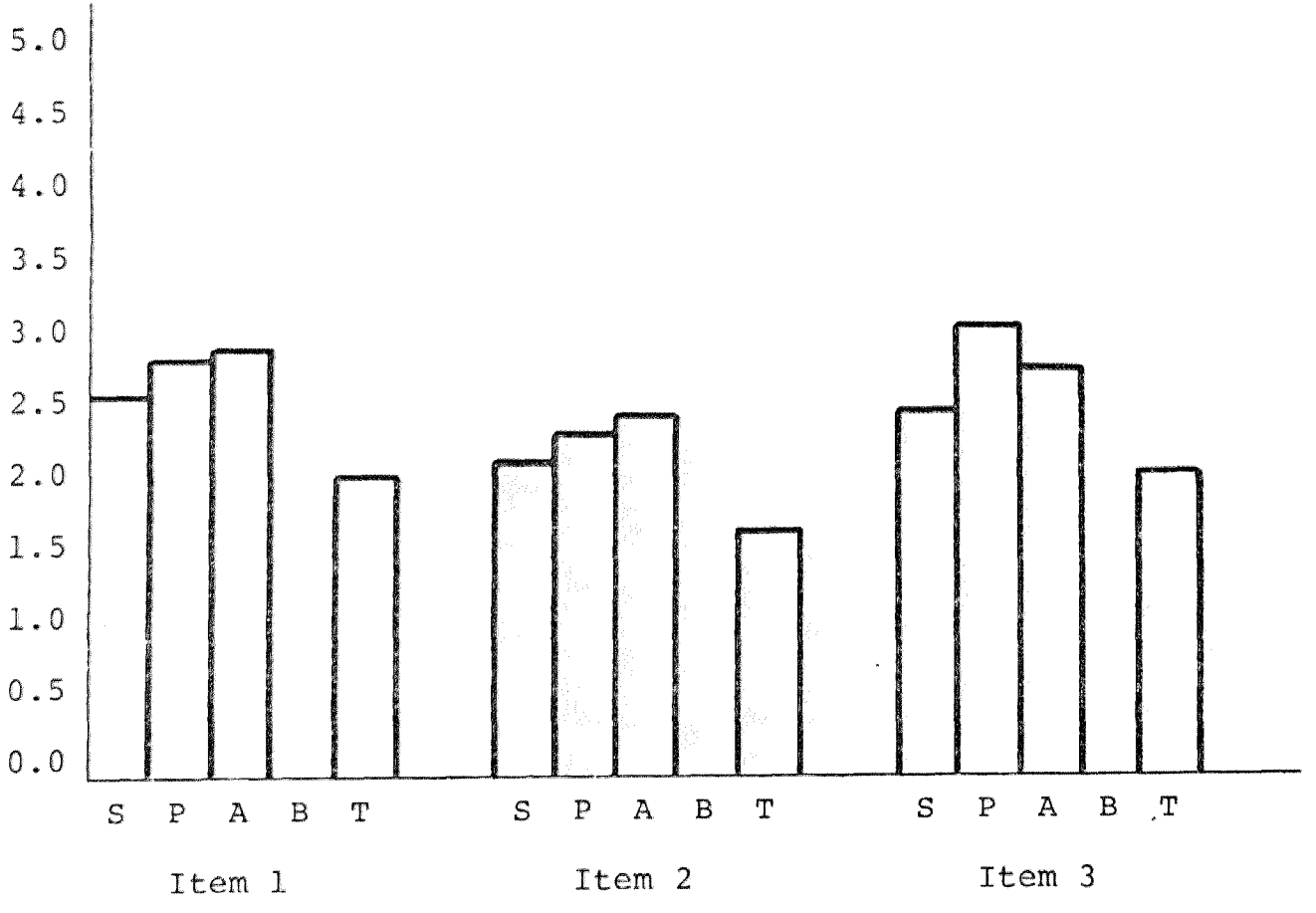


Figure 4 - Eldora

S = Students
P = Parents
A = Adults in Community
B = Board
T = Teachers



APPENDIX D

QUESTIONNAIRE INSTRUMENTS AND CORRESPONDENCE

New Providence Community School
P.O. Box 98
New Providence, Iowa 50206
(515) 497-5201

May 10, 1978

Dear Colleague:

Thank you for cooperating in this study. I have provided the appropriate number of questionnaires for distribution as you indicated.

The questionnaires are color-coded for easier tabulation. Please note:

white - parents
green - teachers
gold - students
pink - board members
blue - administrators

I have indicated a May 19 return date, as we discussed. If you have any further questions, please call me at 515-497-5211.

Again, thanks.

Sincerely,

Stephen L. Swanson
Superintendent

Dear Participant:

Your school district has been selected from among Iowa's fifty smallest schools to participate in a survey to determine the attitudes and opinions of students, teachers, board members, parents and administrators, concerning alternative education programs among Iowa's small schools.

Approval has been given by your school administrator to participate. It is hoped that by compiling this data, information can be disseminated to the DPI and Iowa Legislature regarding the feelings of those directly involved with local educational agencies.

Please return the completed form to your school's office by May 19 so it may be included in the compilation of data.

Thank you.

Sincerely,

Stephen L. Swanson

RATIONALE

The input of various groups and individuals is needed to provide guidance for those involved in the decision-making process of providing options to standard educational programs.

By analyzing the attitudes and considerations of the surveyed groups, educational alternatives could be formulated, information shared, and future needs better met.

On the accompanying chart, six possible alternatives are listed. They are as follows:

1. Sharing Administrators: Two or more K-12 school districts employ an administrator to administer each school district. Example: Schools A and B hire one superintendent to serve as chief administrator of both districts.

2. Sharing Facilities: Two or more K-12 school districts cooperatively use the same school facilities. Example: School A's bus barn is used by both School A and B for housing and maintenance.

3. Sharing Programs: Two or more K-12 school districts jointly offer courses to be held at one attendance center. Example: Schools A, B, and C offer high school chemistry for credit, to be taught by one instructor, at one attendance center.

4. Sharing Teachers: Any K-12 school district could employ a teacher on less than a full-time basis, sharing that teacher with a neighboring district. Example: An art teacher instructs art classes at School A in the morning and at School B in the afternoon.

5. Voluntary Reorganization: Two or more school districts vote to voluntarily reorganize into one school district.

6. Increasing Local Taxes: Each local school district is given the option to increase local taxes within satisfactory limits to provide more revenue. Example: School District A votes to increase the local property taxes by passing an enrichment levy.

If there is to be change, certain considerations must be taken into account.

A. Cost: The dollar amount needed to provide the services to the students during a school year.

B. Quality: A degree of excellence; a judgment of the education received by the student. The output of an educational program.

C. Efficiency: Quality received for dollars spent.

D. Transportation: The moving of students from their homes to the school attendance center and back again at the end of the school day.

In each column, please rank from 1-6 the order of your preferences for the alternatives listed. Example: If sharing administrators is preferrable to the others in terms of cost, it would be followed by a 1 in the blank. If increasing local taxes would be considered last in terms of cost, it would be followed by a 6 in the blank.

Example: Cost

1	sharing administrators
3	sharing facilities
5	sharing teachers
4	sharing programs
2	voluntary reorganization
6	increasing local taxes

Please rank all four areas of consideration in the order of your preference: 1 being the most preferred and 6 being least preferred.

Cost: When I consider cost (the dollar amount needed to provide the services to the students during a school year) I prefer

___ sharing administrators
___ sharing facilities
___ sharing teachers
___ sharing programs
___ voluntary reorganization
___ increasing local taxes

Quality: When I consider quality (a degree of excellence; a judgment of the education received by the student, the output of education) I prefer

___ sharing administrators
___ sharing facilities
___ sharing teachers
___ sharing programs
___ voluntary reorganization
___ increasing local taxes

Efficiency: When I consider efficiency (quality received for dollars spent) I prefer

___ sharing administrators
___ sharing facilities
___ sharing teachers
___ sharing programs
___ voluntary reorganization
___ increasing local taxes

Transportation: When I consider transportation (the moving of students from their homes to the school attendance center and back again at the end of the school day) I prefer

___ sharing administrators
___ sharing facilities
___ sharing teachers
___ sharing programs
___ voluntary reorganization
___ increasing local taxes

Would you please rank in order (1-4) your priority of these major considerations regarding alternatives:

___ cost
___ quality
___ efficiency
___ transportation

Would you please mark in order (1-6) your preferences of the listed alternatives:

___ sharing administrators
___ sharing facilities
___ sharing teachers
___ sharing programs
___ voluntary reorganization
___ increasing local taxes

Comments: